EARTH FIRST!

MABON EDITION

September 22, 1988 Vol. VIII, No. VIII

THE *RADICAL* ENVIRONMENTAL JOURNAL THREE DOLLARS

Freddies Set Their Sights High: Kalmiopsis Tree-Sitters Targeted

by Greg King

The Earth First! Nomadic Action Group (NAG) this summer initiated and currently maintains a fervent battle to save the 120,000 acre North Kalmiopsis Roadless Area, in the Siskiyou National Forest of southwest Oregon, from illegal Forest Service (FS) destruction. In the heart of the Klamath-Siskiyou bioregion, the North Kalmiopsis, when combined with the adjacent 180,000 acre Kalmiopsis Wilderness Area, is the largest, most diverse coniferous forest in the western 48 United States: a biologic island defended by Earth First! since 1983.

On July 11, in Gold Beach, Curry County, 15 Earth First!ers kicked off this summer's action season by protesting old growth forest sales on Indigo Creek, a tributary of the pristine Illinois River. The Freddies buried the auction in a basement that we never would have found if not for following two obvious greedheads to a diminutive green building. The doors were locked. We sang, chanted, and insisted on a say. No response. Soon the requisite public relations Freddie approached and announced she would be happy to talk with us if we would step "over here," away from the meeting, and that normally she would let us in but we had not completed the proper paperwork.

July 12, we hit Grants Pass, Josephine County, for a similar protest of clearcut "fire salvage" sales on Silver Creek, another nearly untouched tributary to the Illinois. July 13 and 14, we demonstrated in Grants Pass to decry old growth sales and the contract bidding to build infamous Bald Mountain Road, halted since 1983 by direct action and lawsuits. Public protests gave the issue high profile in the press while providing diversions for concurrent reconnaissance of the Bald Mountain area, where the only operation slated to begin before mid-August would take place.

Meanwhile, the Colorado contingent of Luke, Kathy and Scott returned from packing climbing gear and food to a clandestine camp one-half mile south of the proposed road. They reported that security at the site was low. This was good news, for a few days earlier an article in the Grants Pass *Daily Courier* stated that "eight armed 'pot commandos'" would, in addition to busting growers, "be trained in riot control to help deal with environmental protests this summer." The "commandos" – sheriff's deputies – would sport high-powered rifles, sophisticated surveillance devices, helicopters, and camouflage gear. In addition, county enforcement agencies had reportedly gathered a fleet of buses to deal with arrests of environmentalists. We were honored.

July 13, the Colorado contingent and Daniel Boone and I hauled platforms, water bottles and food along the ten miles of Wilderness trail to Bald Mountain at the northern edge of the Kalmiopsis Wilderness (just a few feet from the proposed road). July 17 and 18, 15 ecodefenders hiked to Bald Mountain. Scheduled to sit in burned trees were Mike Howell from Berkeley, and local heroes Steve Marsden and Mary Beth (MB) Nearing. The Freddies reported that road-building would not begin for at least a week, but due to past Forest Service lies we wanted to be ready anyway.

A reason, it turned out, for delaying road-building was to allow FS monitoring of a nefarious Senate bill rider, introduced by Oregon's US Senator Mark Hatfield, as it breezed through Congressional committees. While temporarily disallowing construction of all but one mile of the proposed eight miles of Bald Mountain Road, the rider provided for helicopter yarding in lieu of road access while prohibiting lawsuits over the forest sales. The rider eventually passed, destroying a lawsuit

Mary Beth Nearing declares "ENOUGH."

to stop the road and the salvage logging.

Just before dusk, July 19, action groupies scurried up Bald Mountain's steep south slope. Nearly every tree on the mountain's south slope survived the blaze, each showing a green and healthy canopy above various levels on charred trunks. At the razor-back ridge-top the scene changed: trees were charred to the top, branches jutted out naked, dark.

The burned landscape is marvelous, mystical, alive with regeneration and fulfillment of natural processes. At the base of most hardwoods are fairy-rings of tree sprouts, providing a shock of green across a black and brown landscape. Scattered about are Knobcone Pine seeds, released from the cones by the fire. Many of the conifers here in the Kalmiopsis Wilderness are dead and will fall, providing charred ground with nutrients, topsoil, and stability. Outside the Wilderness Area, logging may permanently destroy this natural cycle.

A warm wind blew as we gazed across the ridge, occasionally dropping heavy branches with a sudden CRACK, sending shivers through tree climbers. Tree scaling and sitting would this time be more dangerous than ever.

At 9 PM, Arcata climbers Todd Swarthout and Kurt Newman ascended blackened trees to affix vertical ropes and platforms for sitters. Sitters with food, water and gear went up to secure their strategic location in the 'dozer's path, to block construction of Bald Mountain Road.

After eight days of heat over 100 degrees and no action from road-builders, the sitters descended on July 27, to be replaced by Neil Sinnot, Denise Elke, and Bob Bobigliano. MB and Mike, waiting on the ground for replacement were surprised by the arrival of a deputy sheriff and two professional tree climbers, brothers Clarence and Steve Barstow. Mike scurried back up his rope. The deputy stopped MB by cutting her rope, then arrested her and hauled her away.

The next day, the now deputized Barstow brothers, numerous cops and Freddies, and the pot commandos descended on the new sitters. The "commandos" appeared to be out of shape desk jockies: pale, flaccid faces and paunchy tummies were the norm. Clarence Barstow, however, is a four-time world pole climbing champion. He and brother Steve climbed each tree and cut down sitters' provisions and one of the platforms. (Tree sitter lesson: When the authorities ascend, stay on the platform and attach all gear to your body.) That night, Bob escaped, foiling the eight commandos camped near his tree. The next day Neil and Denise came down and were arrested, charged with trespassing. Matthew Haun, an observer perched on the ridge in the "legal" Wilderness, was arrested for aiding and abetting the "crime."

Contacts inside local Freddie offices told us that tree felling for construction of the road would begin August 2. The action group was still solid, but activists experienced in heights were lacking. MB announced she would violate her release agreement and again occupy the canopy; we had to talk her out of it. Oregon ecodefender Barry Martin agreed to be the lone sitter. Felling began the scheduled Tuesday, giant Black Firs crashing through adjacent dry branches to a thunderous death below, sending clouds of dust and soot hundreds of feet into the air and avalanches of shale down the hill. Each tree as it hit rolled like a cannon ball down near-vertical slopes to an abrupt rest 200 feet below.

The next two days were dramatic testament to the US government's willingness to risk human lives in exchange for corporate profits. Two loggers worked unwittingly toward Barry's tree. Once they discovered Barry and reported his presence, Siskiyou National Forest security officer Bob Martin ordered the fallers to cut trees near Barry's perch. One of the men refused; but the other, Steve Wright, felled a Douglas-fir attached to Barry's tree. (Barry's and the felled tree had shared a common trunk.) He then twice cut into Barry's tree as if he would fall it, and then nearly killed Barry with a tree felled directly toward his perch.

"This tree," Barry later said, "came a few feet from hitting me. He (Wright) turned his chainsaw off after that ... I think it scared his ass.... A branch hit my platform." After nearly being smashed as Forest Service and sheriff's personnel watched, Barry ranted at Martin for not being in control.

"If I was in control," Martin replied, "we'd just cut you down."

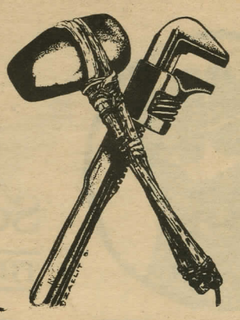
Josephine County's elected sheriff Bill Arnado was later quoted in local papers as saying that if it appeared Barry would make hostile moves as the Barstow brothers climbed trees for the arrest, then "we would shoot his ass out of the tree..." This was soon backed up by a sheriff's deputy who, while the Barstows climbed, sat atop Bald Mountain ridge with Barry framed in the cross-hairs of his high-powered rifle. Meanwhile, MB was again arrested. Like Matthew, she was caught in the "legal" Wilderness. Thus, while Hatfield's rider aided logging and road-building that clearly violates the National Environmental Policy Act (NEPA), the local judiciary incarcerated not only people who would enforce this law, but also any supporters who dared witness such enforcement.

The next ten days were filled with press reports, court appearances and complementary demonstrations. Rumors of monkeywrenching filtered in from the field. "Siskiyou National Park" signs were placed high in trees along public roads surrounding the Kalmiopsis, directing motorists to FS clearcuts. The Freddies, despite it being one of the driest years in decades, continued to allow logging – among the greatest of fire risks – while disallowing campfires and cigarette smoking in the Siskiyou National Forest.

Steve Marsden on August 17 climbed onto the roof of the Siskiyou NF office to hang a banner reading, "THE FOREST SERVICE LIES." Marsden was arrested, but not before all three local TV affiliates filmed the action for reports on the lies: that the Forest Service claims 7.5 million acres of old growth exist in National Forests (the real figure is 3.2 million); that the Siskiyou NF plan says 443,000 acres of old growth remain in this Forest (the real number is 141,000); that salvage logging will "rehabilitate the burned areas"; and that a delay in logging will "cost the federal and local government

continued on page 5

EARTH FIRST!



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A VIEW OF THE VORTEX

A major topic of discussion in Earth First! circles (vortices) these days is the Kalmiopsis. We wish here to pay tribute to the heroes defending the North Kalmiopsis Roadless Area, and to reiterate their request for more activists. The importance – in an historical, political, and, most of all, ecological sense – of the Kalmiopsis campaign cannot be overstated. This was one of EF!'s original battles and greatest victories, and now the victory's permanence is in doubt due to the political machinations of a benighted senator, an unscrupulous federal agency, and a coercive industry. If we lose the Kalmiopsis, some veteran EF!ers are saying, it will be time to rethink our reliance on civil disobedience, and perhaps move toward uncivil disobedience. Already, disaffected EF!ers and Washington EF!ers, subtly obfuscating their identity with the name Stumps Slurp! (or is it Stumps Snort!?) have escalated their actions to a high level of uncivility. The Kalmiopsis defenders themselves are becoming more aggressive, and more effective.

A growing militancy among ecodefenders may also be suggested by various rumors circulating about plans for new and more radical direct action groups. For instance, through the grapevine, we hear of former EF! activists, who now consider EF! too moderate, contemplating a manifesto entitled "In Defense of Arson." This project, rumor suggests, would combine the studies of ecologists – in particular, experts on natural fire regimes – with the acquired knowledge of ecodefenders (on dismantling structures, etc.), to present a plea for ecologically safe use of fire as a means of destroying misplaced machines and developments. Apparently, some militant activists think prescribed burns should become a part of ecodefenders' arsenal (arsonal). Several letters in our discussion on EF! growth in this issue mention the likelihood of more radical groups splintering from EF!

Fire is a topic of several natural history articles in this issue. In another fine natural history article, Jasper Carlton summarizes his research on behalf of snakes. Jasper recently gave us the good news that the Earth First! Biodiversity Project has recovered financially, thanks to generous donations from our readers. Keep sending them; the Biodiversity Project is, dollar for dollar, the most potent force in the US working for imperiled species.

We also print here reports by George Wuerthner and Mollie Matteson on grazing in western National Wildlife Refuges. These should be especially useful to activists planning protests against public lands livestock grazing at the stockman's convention in Denver this winter.

To drift in the direction of levity, the latest EF! gossip is that Mike Roselle and Karen Pickett have eloped. Not only was their recent marriage not prearranged, and not only was it unconsecrated by the Church, but they actually flouted the wishes of their elders by marrying outside their respective social classes, she of royal lineage and he a mere plebian. Last we heard, they were on a fast train to the East Coast, but promised to return to EF! duties soon.

Mike's Direct Action Fund appeal again promises to benefit impecunious EF! direct activists. Mike and DAF advisers will be dispersing monies for EF! direct actions throughout the country in coming months. If your EF! group has an action planned which requires money or outside activists, contact the DAF to seek help.

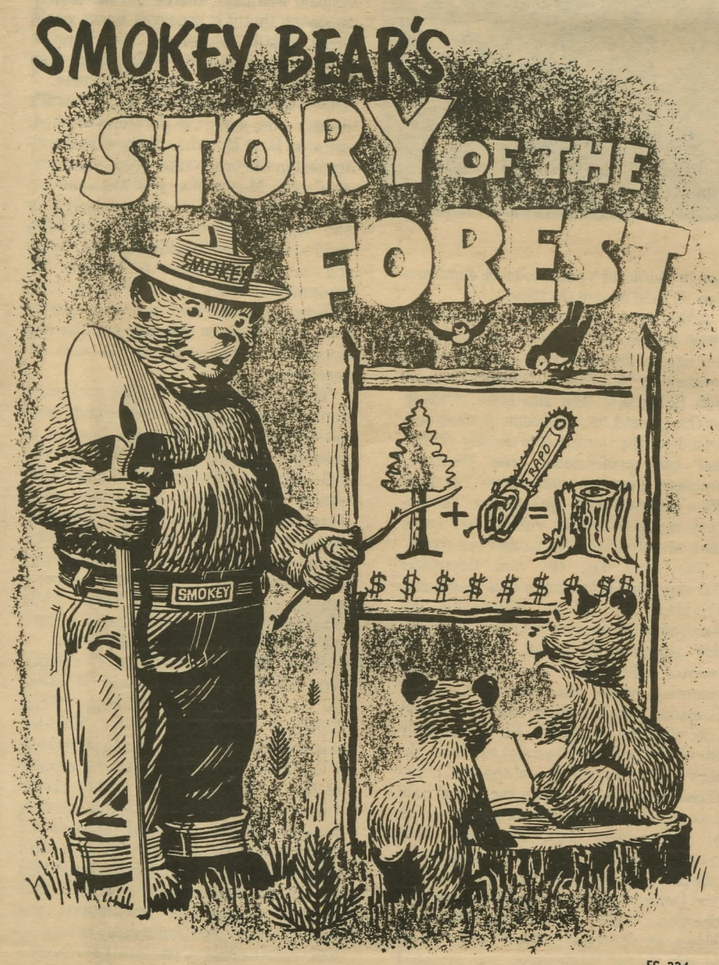
We will soon send out the local groups' fund-raising letter. We ask you to again give generously, this time to your local Earth First! group or the EF! group which most impresses you.

We also encourage you to donate your surplus money to the *EF! Journal* Research Fund, which fund partially paid for several of the feature articles in this issue. Another way you can help keep the Journal afloat financially is to buy your Yule gifts from EF! Trinkets and Bookstore. You'll note that we are offering important new books by Dolores LaChapelle, Ed Abbey, Bill Devall, and John Seed, Joanna Macy, Arne Naess and Pat Fleming. Also newly available are desert and Darwin bumperstickers and a snake shirt. Though many of us may be bothered by this nation's bumpersticker mentality, if more of the bumperstickers were ours, there might not long be bumpers needing such decor.

A word about our new office arrangement is due. Our irreplaceable office manager, Kris, is now in Maine. Send orders and subscription checks to her. After processing the checks, Kris sends the orders here, where our irreplaceable mail clerk, Nancy Z. (it's not worth trying to spell), fills them. Please understand the slight delay this entails. Also understand that when doing a local group mailing to *EF!* subscribers in your area, you should send *to Kris* what is to be mailed *well in advance* of your event.

Enough of such mundane matters; it is befits the gleeful tenor of these post-Reagan days to close with cheering news: Led by Barb Dugelby, Christi Stevens, and Jean Crawford, Texas Earth First! has in recent months brought to the nation's attention the plight of the Black-capped Vireo, in Texas Hill Country, and a group of endemic cave species, in northwest Travis County. As the TX EF!ers describe herein, they have already forced various developers who threaten the bird's habitat and the caves to modify land despoilment plans. The EF!ers have shone a ray of hope upon the beleaguered bird and the troglodytic spiders and beetles which dwell in nearby caves.

–John Davis



FS–334

ANOTHER EF! EFFICIENCY IN GOVERNMENT PROPOSAL

(Prepared at the request of and hereby submitted to Michael Dukakis and George [Papa Doc] Bush, candidates for President of the United States)

The Earth First! Presidential Task Force on Governmental Efficiency (EF!PTFOGE) hereby proposes the creation of a new Office of Personnel Management within the US Department of Agriculture. This governmental office will use aerial photography to locate and inventory aging Forest Service officials. A faceless USDA-OPM bureaucrat will, without exception, judge them to be "overmature" and "decadent."

The USDA Office of Personnel Management will then heavily subsidize professionals to mark the elderly Freddies with paint, cut them off at the knees, spray herbicides on their stumps so they don't grow back, and send them to a reprocessing facility.

–EF!PTFOGE

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Although we do not accept the authority of the hierarchical state, nothing herein is intended to run us afoul of its police power. *Agents provocateurs* will be dealt with by the Grizzly Defense League on the Mirror Plateau.

Submissions are welcomed and should be typed or carefully printed, *double spaced*, and sent with an SASE if return is requested. Electronic submissions are even better, either on Macintosh disks or via Econet (login "earthfirst"). Art or photographs (black & white prints preferred, color prints or slides OK) are desirable to illustrate articles and essays. They will be returned if requested. Due to our tight budget, no payment is offered except for extra copies of the issue.

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Letters to the Editor, articles, photos, etc. for *Earth First!* should be sent to: Earth First!, POB 5871, Tucson, AZ 85703, except for poetry which should go to Art Goodtimes, Box 1008, Telluride, CO 81435.

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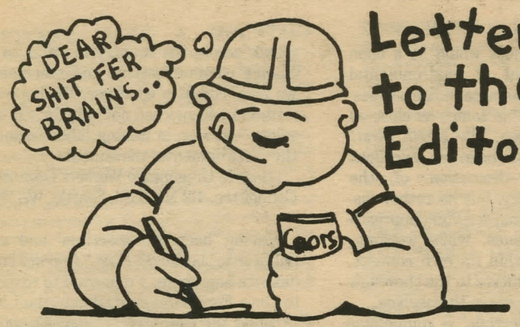
Contributing Photographers: David Cross, Roger Featherstone, Doug Peacock, Scott Smith, Howie Wolke, George Wuerthner.

Mailing: Tucson Earth First! Group

Please send any newspaper clippings mentioning Earth First! or dealing with subjects of interests to us at POB 5871, Tucson, AZ 85703. Clippings about monkeywrenching of any kind would also be appreciated. Thank you!



Letters to the Editor

Letters to the editor are welcomed. Lengthy letters may be edited for space requirement. Letters should be typed or carefully printed and double-spaced, using only one side of a sheet of paper. Be sure to indicate if you want your name and location to appear or if you wish to remain anonymous. Send letters to POB 5871, Tucson, AZ 85703.

Dear Dave Foreman,

I thought that you and other *Earth First!* readers would like to know that the wolves of northern British Columbia are fighting back. This past January my daughter and I, who travel by thumb, were riding up the Stewart-Cassiar highway in a logging truck en route to our wilderness home. The early morning light did little to mollify the devastation that clear cut logging has brought to the region in the past few years. Mile after mile, gruesome piles of charred logs jutted through the blanket of white that winter had draped, like a shroud, across the giant graveyard that had once been a forest. Hedges of snow lined either side of the gravel road and I snapped to attention when a large dark shape suddenly hurtled through the snow bank on the passenger side, sending white powder flying into the air. I was astounded when, what I recognized to be a huge black wolf, with hair standing straight up, and teeth bared, accelerated and ran straight at the logging truck, its yellow eyes filled with rage.

As we all recovered from the shock of the attack, the logging truck driver following a few yards behind came through on the radio and said that the wolf had crossed the road, and then spun around to attack him from the opposite side. Since then I have heard of another similar incident, which also involved a wolf and a logging truck. I have never heard of them attacking an ordinary vehicle.

If the present social credit government has its way, all of B.C. will one day be a wasteland void of plant and animal life. Perhaps the wolves have enough vision to see this even if most of the people don't. We applaud their efforts.

–Deanna Kawatski, Stewart, B.C.

Dear Shit Fer Brains,

It was awfully nice of you to credit me for taking several of the photographs which accompanied the article about the National Day of Outrage, but as I thought I pointed out when I sent them to you, Karen Nichols took them. I'm usually not adverse to accepting credit for things I haven't done, but I make occasional exceptions.

–Bill Haskins, Missoula, MT

Oops. My apologies to Karen, whose outstanding eco terrorist photo graced the front page of the Litha edition.

Let me take this opportunity, though, to ask that photographers clearly label the photos they send us, including at least where the place is and who took the shot. It's all too easy for that vital info to get separated from photos, and the result is photos that become anonymous. If you send slides, please also include a piece of paper giving us explicit permission to reprint them (our photo processor demands it).

–Dale

Dear SFB:

Overheard in a Sierra foothill town about 40 miles north of Bakersfield; two young boys talking:

"Your daddy work for a living?" said one.

"Naw, he's with the Forest Service," replied the second.

"Honest?" questioned the first, impressed.

"You kidding? He's the supervisor!"

From the mouths of babes....

–Jorge Jeduc

Dear SFB:

I HAVE SEEN THE LIGHT! StarKist Tuna has opened my eyes and set me straight! Thank God for Delores Janicick, Consumer Affairs Manager. She says that her company spends millions of dollars a year *saving* dolphins, not killing them! It seems that StarKist *loves* these animals, and only wants to "harvest" tuna!

Delores says that the tuna industry strongly supported the passage of the Marine Mammal Protection Act. Best of all, she claims that the industry is responsible for the progress made in reducing dolphin mortality, *not environmental groups!*

So, Earth First!ers, give Charlie the Tuna a break – please don't boycott! You can voice your support for this much maligned industry by calling Delores collect at (213) 590-7900.

–Michael & Mike

Dear Folks,

In Brigid, 1988, an article by Suslositna Eddy described the Alaska National Parks Wilderness Review. This review is to decide the fate of millions of acres of wilderness-quality parkland which was never designated wilderness by Congress. The opportunity now existed to affect the bureaucracy directly. Individuals were as important as special interest groups. The author suggested that both local groups and individuals of the Earth First! persuasion write to obtain copies of the draft Environmental Impact Statements and respond on each of the 13 National Parks being reviewed. As Suslositna Eddy, wrote: "If the NPS is overwhelmed numerically by pro-wilderness comments, they must recommend to Congress a pro-wilderness Alaska National Park system." Months later, the Litha edition included an article by George Wuerthner concerning specifically the Gates of the Arctic National Park and Preserve and the wilderness review DEIS. Again, the writer exhorted pro-wilderness letter writing.

I was eager to receive the final EIS to see what effect the pro-wilderness letters had on the bureaucracy. Yesterday, I found out when I received the final EIS for Gates of the Arctic National Park and Preserve. The wilderness letters had no effect – simply because there were no pro-wilderness letters! Organizational letters included the Wilderness Society and the Sierra Club (where were the EF! local chapters?) but these responses were countered by letters from the Alaska Miners Association, Alaska Oil and Gas Association, Alaska Outdoor Council (a pro-hunting, anti-wilderness group), the Resource Development Council for Alaska, Inc., and even the NRA. Individuals contributed a grand total of four (4!) letters. Conspicuous in their absence were the writers of the Earth First! articles.

I realize that reading 100-page DEISs and writing letters to fat bureaucrats who don't agree with you isn't as much fun as spiking trees or protesting in funny costumes at administrative offices, but damnit, if we can write enough letters to stop the bastards before they start raping, isn't that better than trying to monkeywrench them once they've half-ruined an area? I know Earth First! is a radical group and works outside the system, but wouldn't it be better for the wilderness if we worked within the system, at least at the beginning when the opportunity exists to have a definite effect on the decision-making? We've seen it work – most recently in Colorado where it looks like the Two Forks Damn is not going to plug the Platte because of public outcry.

The *Earth First! Journal* is probably the best on the continent in keeping the reader current with all the issues in wilderness protection. After many of the articles, a paragraph on "What You Can Do" usually urges letter writing. **Please**, buy a ream of recycled paper and WRITE THOSE LETTERS. If everyone receiving *EF!* would write five letters from each issue, we'd probably get more done for the environment than we could with all the monkeywrenching going on today. We've lost much of the wilderness in Alaska due to apathy by pro-wilderness letter writers. Don't let more wilderness dissolve because the land rapers work within the system better than we do. The typewriter is mightier than the monkeywrench!

—Louise Young

Dear Mr. Foreman:

I am trying to get the idea floating among the environmentalist community of organizing **Earth Day 1990**, as the twentieth anniversary approaches of the first Earth Day in 1970. A focused, coherent event of such a large magnitude has the potential to do what equal amounts of effort expended by groups individually and asynchronously cannot: to break through the collective mind set of the society and change what it takes to be the important issues of our times. That is what Earth Day in 1970 helped accomplish.

For Earth Day 1990, I can conceive of it being focused on the concept of sustainability; in my view it is the single most critical idea that needs to be placed at the center of how people think about the world. Although sustainability is basic to most environmentalists' thinking, it still is peripheral to the thinking of most of the public, business, and government. That is what a major national event can help to overcome.

Sustainability, besides being perhaps *the*problem for human civilization, is also useful as a thematic concept because it can integrate the concerns of a wide scope of people involved in global issues, including the environment, energy and resources, the economy, the arms race, population, and culture.

I am sending this suggestion to various environmental groups I know in the hopes that the persuasiveness of its argument would get the ball rolling. Planning an event for April 22, 1990 (the 20th anniversary of the first Earth Day, and conveniently a Sunday) will give people almost two years to get it organized, but this leaves little time to waste.

Earth Day 1970 was a national event. Enough international infrastructure has developed since then to open the possibility of making Earth Day 1990 a global event. The symbolic effect of people all over the world participating in education and celebration for the future of the earth would be significant. Moreover, a globally recognized event would help to legitimate the voices of environmentalists working in localities that are not yet supportive of environmental protection.

An organizing conference in early 1989 would be a good way to develop ideas about activities to carry out for the event, and develop an infrastructure to effect and coordinate it. I hope that you sound this idea out on some of your colleagues, take it to your next steering committee (or executive council, etc.) meeting, mention it in your group's newsletters and spread the idea to other environmentally concerned groups. If there is a favorable response, consider taking a lead in organizing it. Please let me know what responses you get.

—Dr. Lee Altenberg, Dept of Zoology, Duke University, Durham, NC 27706; 919-684-3758

Dear Fellow Travelers:

Our environmental group, the North Shore Environmental Web, in Nova Scotia, Canada, has developed the concept of informed consent or informed rejection, which can help in mobilizing people to oppose pesticide spraying of their local forests, railway lines, roadsides, and agricultural areas. The Web publicly opposes all pesticide use, but since November of 1986 we have used the concept of informed consent or informed rejection to raise opposition to the pulpwood orientation of forest policy in our province. The concept has wide popular appeal, is politically subversive, and can be used by readers of *Earth First!*

Informed consent or informed rejection is the right to consent to, or to veto, a pesticide use in your immediate environment ("immediate environment" has an elastic definition), and the right to the information necessary on which to base your decision. This means not only pro-pesticide public relations material, often given to locals

continued on page 4

SCHEDULE

***Earth First! The Radical Environmental Journal* is published 8 times a year on the old pagan European nature holidays: Samhain (November 1), Yule (December 21 or 22), Brigid (February 2), Eostar (March 21 or 22), Beltane (May 1), Litha (June 21 or 22), Lughnasadh (August 1), and Mabon (September 21 or 22). Deadlines for articles are three weeks before the cover date: October 10, December 1, January 10, March 1, April 10, June 1, July 10, and September 1. The newspaper is mailed Third Class on the cover date. First Class delivery is available for $15 extra a year. Surface delivery outside the USA is available for $30; airmail delivery overseas is available for $45 a year.**

The Post Office does not forward Third Class Mail but they do charge us 30 cents apiece to to send us your change of address. Please send us your change of address promptly so you do not miss an issue of *Earth First!* and we do not have to pay the Post Office to receive it. Some people using clever aliases are not receiving their copies of *Earth First!*. Be sure to notify your postperson that "Attila the Hun" or "The Animal" receives mail at your address.

WELCOME, LADIES AND GENTLEMEN, TO THE EXCITING NEW GAME SHOW: LANDRAPER!
JOIN OUR CONTESTANTS AS THEY CLEARCUT AN OLD GROWTH FOREST...
BULLDOZE A ROAD THROUGH VIRGIN WILDERNESS...
SAY THE MAGIC WORD (JOBS) AND WIN A TAXPAYER SUBSIDIZED TIMBER SALE!
b. von alten

Letters . . .

Continued from page 3

when pesticide users intend to spray, but also critical health and environmental information on the particular pesticides, and on alternatives to pesticide use. Critical information is hard to find, given that believers in pesticides fund much of the "research."

The very limited availability of critical pesticide information raises for public discussion how this society is geared at all levels to the promotion of pesticides, and how government legitimists – who certify the "safety" of pesticides – are part of the problem. In our area, herbicide and insecticide use, clearcutting, the promotion of tree plantations with a narrow range of softwood pulp species, elimination of hardwoods, etc., are consequences of a pulpwood forestry policy.

Informed consent or informed rejection puts the power of decision making into people's hands. This will be bitterly opposed by the pesticide lobby. One forestry technician, in a recent letter to the editor, put it well, "Informed consent is just a way of ensuring very few plantations will be protected in our province." The Web has defined informed consent or informed rejection for forestry as follows:

All residents living within one kilometer of proposed forest spray blocks must be notified 30 days prior to the proposed spraying, and such residents have the right and responsibility to give an informed consent or informed rejection by signature, in regard to the issuing of the particular pesticide permit, which then becomes binding upon the government and forest industry.

In arguing for informed consent or informed rejection, we use a medical analogy. In medicine, informed consent means, when faced with an operation, being told of the possible complications. Without a person's signature, a doctor cannot normally operate. It should be the same in all spraying situations, which are hazardous for the ecosystem and for humans. Where people live in proximity to spray sites, critical information and signature should be mandatory. Where pesticide users deny this, legitimacy is stripped away, power becomes naked, and people's willingness to fight back increases.

Informed consent or informed rejection is different from "Right-to-Know" legislation. With this kind of legislation, which exists in many states and municipalities in the United States, and in Canada in cities like Vancouver, Toronto and Windsor, one gets the right to know which pesticides or toxic chemicals are being used. Workplace right-to-know toxics legislation is also widespread. While this is an improvement over the status quo, it doesn't give people a veto over pesticide use, as does informed consent or informed rejection.

Further information can be obtained from the undersigned.

–David Orton, RR #3, Saltsprings, Pictou County, Nova Scotia, CANADA BOK 1PO

[ed. note: Co-op America *recently published the following related information:]*

Out of grave concern for Nova Scotia's forests, the Scott Boycott Committee formed to curb the destruction of forestland in this Canadian province. Scott Paper is one of the largest pulp and paper companies in Nova Scotia.... Says the boycott committee, "The pulp companies are replacing a mixed forest of hardwood and softwood trees and shrubs at various stages of growth with an even-aged monoculture. And they only plant softwood. These trees are planted in evenly spaced rows to accommodate machinery so that they can be farmed to feed the pulp mills. Chemical herbicides are used to eliminate species."

... Refuse to buy: Cashmere and Cottonelle bathroom tissue, Viva paper towels, Scott Towels and other Scott products. For more information contact: Judy Davis RR 4 Tatamogouche, NS, BOK 9VO CANADA. Tell Scott how you feel: Scott Paper, Suite 104, 277 Pleasant St, Dartmouth, NS, B27 4B7 CANADA.

Isn't it convenient we just contracted to buy Canada AND now all our forest is being burnt? And THEY have all that lovely forest. Would you like to surmise about corporate ownership?

Just a thought.

—LJ

If any of you EF! people travel through this bioregion and need a free place to stay, contact us at (215) 878-7736, 7610 Woodcrest Ave., Philadelphia, PA 19151.

—Larry Bullock

Sirs:

Your article "Salmon Revival Runs The Connecticut River" in the Lughnasadh edition was interesting and informative. I enjoyed following the journey in the local newspapers. But there are two statements concerning birdlife on the Connecticut that need correcting. "Several pairs of Bald Eagles nest on the river" is inaccurate. Unfortunately the Connecticut has had no Bald Eagles nesting for more than 30 years. We do have a large and increasing winter population of Bald Eagles on the river. Several sites are *roost* areas during the winter; a roost is an extended rest, not a nest.

Also "Dippers shuttled between riverbank and riverbottom." The Dipper or Water Ouzel is a bird of western mountain streams and is not a Connecticut native. It's possible the bird was a Spotted Sandpiper. This sandpiper is of a different color than the Dipper but the size, shape and "bobbing" behavior are similar.

Otherwise, keep up the good work.

–Michael O'Leary, Connecticut Bald Eagle Study Group

Fellow Concerned Individuals,

"Nerthus" is certainly a step in the right direction. For years I have felt that a philosophically oriented periodical utilizing a give-and-take format would be a boon to the development of environmental thought (a long-distance campfire bull session, as it were). This comes as close as anything I have seen. The *Earth First! Journal* has always been an excellent vehicle for the discussion of the philosophy of ecology, but its rather disparate organization and desultory approach to philosophical issues, while working, after a fashion, within its own context, were often not conducive to the thorough development of the ideas themselves.

The format of "Nerthus" is compelling and I think will prove quite successful. By keeping to one theme, each issue will maintain a thoroughness and coherence that was sometimes lacking in the pages of *Earth First!*

Despite my admiration for this project, I would like to make a few suggestions. First, "Nerthus" should always maintain its affiliation with the *Earth First! Journal*. The strength of the *Journal* has consistently been its balance of fact, literature, humor and philosophy; to divest it of its philosophical armature must have a negative effect. However, utilizing "Nerthus" as a supplement to the *Journal* will correct its heretofore mentioned random approach to philosophy, while at the same time serving as effective juxtaposition to the news and opinion pieces. The message of Deep Ecology will be more effectively brought forth.

Second, it would benefit "Nerthus" to foster broad and wide-ranging participation. A reader's forum or "letters" section separate from that included in the *Journal* would make for a dynamic interchange of ideas. Deep Ecology, and environmental philosophy in general, can only benefit from this type of exchange. The rich texture of a living philosophy (philosophy of life) is maintained only when its tenets are discussed, refuted, supported, altered, appended and disabused. When this occurs under the aegis of an organ such as "Nerthus," strength and continuity are the result. "Nerthus" will contribute to the deepening of Deep Ecology, and with any luck, a wider dissemination of its principles.

Finally, I would also like to suggest a topic for future consideration: the so-called New Age phenomenon. With all the media attention paid to this bit of ersatz metaphysics, along with its adumbration of issues important to Deep Ecology (e.g. the concepts of time, ego, "primitive" religions, etc.), it would seem a topic of great potential.

–Robert Goodrich, Ontario, CA

Dear Earth First!

I am currently writing a book about dreams related to nuclear war – about the Bomb and "after the Bomb." I hope to understand better why we are "dreaming" this situation into existence – and how we might take the dream in a different direction. It's becoming clear from my research that Gaia is speaking with great urgency through our dreams – so I'm trying to puzzle out the grammar of what she is saying – and also speculate on a sense of political praxis that would rise from the deepest concerns of the psyche and nature.

The Dream at the End of the World could be a unique and valuable addition to the literature of survival. At this juncture I need dreams. Whoever has dreams of this nature, I would treat them with kindness and can offer $2 for each dream sent before November 28, 1988.

–Michael Ortiz Hill, 203 Blackburn, Santa Cruz, CA 95060

A large number of local people including a couple thousand who signed petitions protesting the Cooper's Rock proposed tram, send their thanks for your efforts in preventing this folly.

–Rose McGrath, West Virginia

We of the Seattle Greenpeace Workers Organizing Committee (Industrial Union 670, IWW) bid you greetings!

We are currently engaged in a struggle with Greenpeace management over their implementation of high pressure telemarketing tactics, electronic surveillance, and undemocratic management in our workplace. We are also working to bring the management to voluntarily recognize our union as the official bargaining unit for the Seattle Greenpeace phone room.

We joined with the IWW because we agree with its overall objectives and because of the assistance it can give us in our struggle. One of our key aims is to contact others in the environmental, labor, as well as the peace and left movements across the country in order to exchange communications and ascertain if we have common concerns. We hope our struggle will succeed not only for our own sakes, but also in raising labor issues in the environmental movement.

–Seattle Greenpeace Workers Organizing Committee, 412 NE 63rd, Seattle, WA 98115

Having been a subscriber and contributor to the *Earth First! Journal* since near its beginning, I'm moved to respond to Dave Foreman's invitation in the Litha "Around the Campfire." I haven't spiked any trees or showed up at any EF! rendezvous, but neither do I balk at "shit fer brains," outhouse cartoons or Miss Ann Thropy's article about the prospects for the AIDS epidemic.

Like many of my age, I was innocently unaware of the environmental crisis during most of my life. It is only through a fortunate series of events that I have become clued in during the past 25-30 years.

Concerning the future of EF!, it appears to me that this movement has taken on a life of its own, an "idea whose time has come." Abe Lincoln said that he had not so much shaped the course of events; rather that his course had been shaped by events."

Then there was that Shakespeare character who said, "we must take the current when it serves or lose our ventures."

–Everett Whealdon, Port Townsend, WA

Gosh, Dave, don't you think that it's exactly the hardass, no-compromise, decentralized characteristics of Earth First! that have *caused* us to grow from a handful of radicals less than a decade ago, to the 12,000 "adherents" we boast of now?

On some level, we're all attracted by the outlaw nature of EF! Having no rules or authority figure means we have freedom. Freedom induces independent thinking, independent action, personal responsibility and creativity. There's no faster way I can think of to stifle freedom than by laying down a bunch of bylaws or rules, and that seems to be what you're suggesting would make EF! more appealing to the masses.

No, in fact, I believe we'll actually *lose* people by softening our stance. I say, GO FORWARD! Be *more* extreme, *more* radical, unleash your most untamed ideas! That's how we'll grow. But we should never forget that our motto is *diversity*. Just because Foreman said it, or Abbey, or Miss Ann Thropy, doesn't mean I believe it. And if I want to be wild and drunk at the RRR, why should that threaten anyone else? Should the coyote change because the rabbit is different?

I fear you're suggesting that we become more unified, more centralized, less diverse. Diversity is life and growth. For our movement to grow, we should follow the same laws of nature that we're trying to protect; among them diversity, creativity, and survival of the fittest. What would happen to the caribou if they slowed down to accommodate their weaker members? Would they grow stronger?

Besides, Dave, Earth First! has already become too tame for many of us. That's why "Stumps Suck" sprouted. And for those wild souls who are even discontent with that, I've heard rumor of an even more radical faction calling themselves "Wilderness and Bombs!" I believe they have a sister group called simply "Wilderness or Die!"

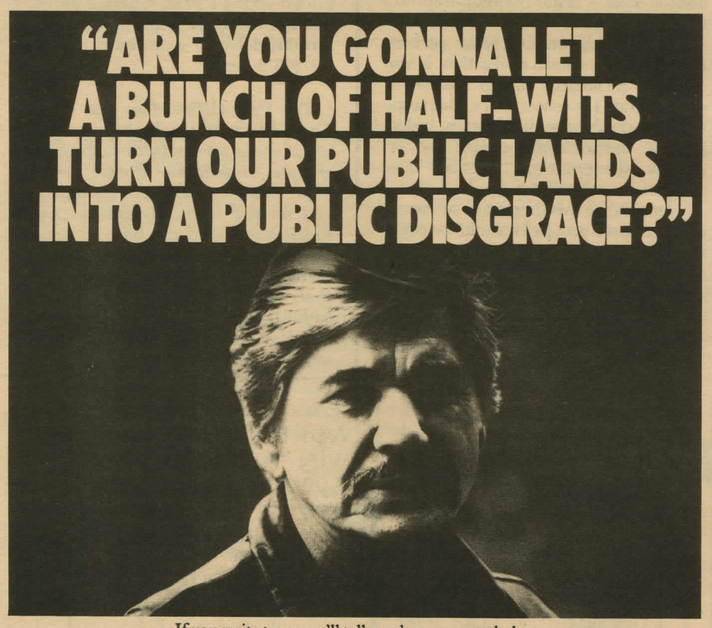
In other words, you need have no fear of the environmental avant-garde disappearing. It will thrive no matter who says so or not! So, let Earth First! remain as uncompromising as it can be, in order that we will all be stronger.

–gila trout

Dear folks,

With apologies to the wild-eyed radical anarchist lurking in each of us, I'd like to make a few comments on the subject of membership. We have no membership and therefore maintain that we are a movement and not an organization. O.K., but how do we keep just any angry person from saying anything they feel to the media and having it interpreted to the public as EF! policy? How do we get across, to the many people who would like to do something to help the planet in the way of direct action, that we do not require a person to commit crimes against the existing political system, however bad we feel that system may be? What is the point of turning people against us by our flamboyant and often frightening behavior?

continued on page 5



If you write to us, we'll tell you how you can help stop abuse of our public lands.

Ad Council

BAD GUYS ABUSE PUBLIC LAND. GOOD GUYS SAVE IT.

EARTH FIRST!

TAKE PRIDE IN AMERICA

Tree-sitters . . .

Continued from page 1

tens of millions of dollars."

As Marsden pointed out, each day of Kalmiopsis logging is a tragedy unto itself. The now completed one mile of Bald Mountain Road, for instance, cuts through steep, rocky cliffs that will crumble even if surrounding trees are not removed, which they will be. The Freddies this year sold 10,000 acres of old growth and planned 20 new road miles inside equally steep areas within the North Kalmiopsis.

Marsden also illustrated the high level of governmental deceit that goes into such sales. EF! reconnaissance, for instance, found many areas slated for "salvage" logging that were only slightly or never burned by last year's lightning blazes. In addition, the deficit sales have already cost taxpayers at least $5 million, most of which the Freddies squandered on crackerjack lawyers to create an environmental impact statement that they thought would hold up in court. Whatever bribe Hatfield received, however, inadvertently exposed Freddies' legal maneuvers as parts of an intricate plan to plunder the final vestiges of Oregon's primeval life.

The money rolls in, biologic diversity rolls out. The white blood cells, however, have multiplied and mobilized, posing the only remaining pertinent question: Will we be on time, or will the North Kalmiopsis fall to a diseased set of human priorities because too many white blood cells simply stayed home?

WHAT YOU CAN DO:

Don't simply stay home. Donate time or money to the Kalmiopsis campaign. Contact Oregon EF! or the Direct Action Fund (addresses in Directory). Send letters in support of Wilderness designation for all of the North Kalmiopsis to your senators (US Senate, Washington, DC 20510) and representative (House of Representatives, DC 20515).

Greg King is a veteran of the campaign to stop MAXXAM's cutting of northern California's Coast Redwoods, who this summer traveled with the Nomadic Action Group.

Rigging a threatened tree for occupation.

Letters . . .

Continued from page 4

I believe that in this age of increasing awareness, people do realize that we are nearing the end of our cycle of unlimited growth. People are beginning to understand that unlimited growth is the ideology of the cancer cell. I agree that we are tired of trying to work within a system that takes your energy and turns it into a waste of time. How many times have we typed facts and figures, collected names on petitions, etc., only to have the powers that be stuff them in the file and go right on selling off our resources to the corporate creeps that sell it back to us for a big profit?

O.K., we're angry and we want action! We are not the first outfit that fits this bill, but we may be the first that has no real proof of our existence. All the local opposition has to do is call us terrorists and it strikes fear in the hearts of the public much the same as the word "communist" did during the McCarthy era. Back then there was (and still is today) a union of activists and concerned folks called the Industrial Workers of the World (IWW). This group was using our tactics long before most of us were born. Agitator stickers, The Little Red Songbook, organizing of people to take direct action, printing and distributing the truth.

They had the same problem I am addressing here, that of establishing a guideline or policy that newcomers to the movement could understand. The way they did this was by consensus, and the way they established consensus was by means of an "in-house" newsletter circulated among the members only. This "in-house" paper contained everyone's complaints and concerns about problems within the movement. By publishing this in a members-only paper, they are able to keep the troubles of the movement within the movement and not spread over the pages of the paper meant to inform the public.

In other words, keep the "in-house" problems "in-house" until they could be settled by a consensus of the membership and shaped into some form of policy, then print that in the public forum. This, of course, requires something that we don't have. Members!!!

Just who does establish what we, as a movement, believe in? Are we terrorists? Are we willing to use violence to accomplish our goals? What will we do if one person, in the name of EF!, decides to bomb the Forest Service office in Anywhere, USA? The point is, how do we establish the difference between one person's opinion and the collective policy of a group of diverse and creative people numbering in the thousands? Opinions will vary greatly, but a consensus of opinion, which is the only fair way to judge the direction that any movement is going, is not possible without establishing a membership. I believe it will eventually become necessary if Earth First! is to maintain any credibility and influence on the environmental front.

–Dakota Sid Clifford, Grass Valley, CA

Too often in today's world, growth is mistaken for size. Does growing in strength necessarily mean growing in number? Perhaps we should consider spiritual growth in the tribe. Perhaps we should promote growth in our convictions, growth in the personal power of the few so that we may produce new leaders for the revolution of the mind that must be accomplished, growth in the number of people living the dream who set examples of alternatives.

If the tribal council should desire to assume more control in an attempt to "improve" public image, gain political strength, and coordinate unified efforts, the result would be a compromised movement, and splinter groups would surely fracture off. It would be better by far to keep the Earth First! name for those of us on the leading edge, those tribal fractions who are most de-centralized, most active, least public-ized, those whose primary concern is *the Earth first.*

Perhaps some lessons can be learned and pitfalls be avoided by looking at the formation of the fledgling Greenpeace movement. If our desire is to create another Greenpeace, why does one not (as many of us have) join Greenpeace and add to their efforts? If we want political prowess and popular acceptance, why can't one (as many of us have) join the Sierra Club and become active leaders? EF! is unique, and it is just that which has attracted many of its most sincere advocates.

If it is the desire of the tribe to become *larger*, more accepted, and more organized at the sacrifice of ideological effectiveness, and they insist on taking the Earth First! name with them, then I cast my lot with those who will perpetuate EF! ideals and actions in lifestyle under a new clan title: perhaps "Stumps Suck!" No compromise in defense of Mother Earth.

–Firefox, New York

Dear People:

This is only the second issue of *EF!* I've read all the way through, and it makes me weep for joy. I had long intended to look into the EF! movement as something which was reputed to be addressing neglected areas of legitimate concern, but the aura of negativity and irresponsibility which always surrounded mention of EF! put me off enough to delay investigation. Now that I see what you're writing – and even more significantly what your correspondents are writing you – rather than what your interpreters are declaring *about* you, my faith in the utility of human minds is on the road to restoration. Such insightful, thoughtful (if not necessarily reverent) and intellectually honest commentaries; such a paucity of cant, rhetoric, demonstration of political correctness, and literary masturbation is just not to be found elsewhere. You people who don't also regularly read *Harper's* and *Free Inquiry* and *New Options* and *The Progressive* and *Utne Reader* can't appreciate the oasis of full mental functionality you circulate in. Did I forget *Whole Earth Review?* If these guys got reader feedback reflecting the kind of clear-headed thoughtfulness which permeates your Letters section, they would certainly print it.

Am I laying it on too thick? Anyway, thanks for existing.

–Mark Drake, Leggett, CA

NO-COMPROMISE POLITICS WORK

Looking Back One Year After the Silver Fire

1988 may well be remembered as the first year when *all* environmentalists in Oregon were labeled extremists. The reasons for this polarization are many, and for the most part, justified:

1. The hard-line stance of environmentalists against any fire salvage in the North Kalmiopsis: "Not one burnt stick..."

2. The blanket appeals by environmentalists of over 236 turned-back and then reoffered timber sales which the Forest Circus tried to exempt from further public review.

3. The request, filed in Oregon District Court on July 8 by National Wildlife Federation, National Audubon Society, The Wilderness Society, Oregon Natural Resources Council, and Headwaters, for a Temporary Restraining Order against the Silver Project.

4. The denial on July 21 of the environmentalists' request for an injunction, despite acknowledged Forest Service violations of the National Environmental Policy Act.

5. The presentation by Madera Allen, age 9, to Governor Neil Goldschmitt of Earth First!'s "Children's Agenda" for an economy based on "celebrating Oregon's beauty, not destroying it," at a demonstration confronting Goldschmitt and Oregon Congressman Les "More Rape" Aucoin in Grants Pass.

6. The timber industry's secret videotaping, for exclusive showing to Oregon Congresspersons, of a strategy session at the Western Natural Resources Law Conference in Eugene, where mainstream environmentalists were recorded saying "scandalous" things like, "the Spotted Owl is a surrogate for old growth; if it didn't exist, we'd have to invent it."

7. The closure of the plywood plant in Grants Pass; 180 workers put out of work by Medco (recently taken over by Amalgamated Sugar); blame placed on the (non-existent) log shortage caused by environmentalists.

8. The media-hype walk by logger Greg Miller from Eugene to Grants Pass, asking that more timber be salvaged to build "homes for the homeless," and tying yellow ribbons along I-5 to guide out-of-state truckers to the Silver Fire Round-up.

9. The burning of a Forest Service Silver Fire Recovery Plan in front of Region 6 headquarters, with concurrent hanging of banners and blocking of FS doors; four Earth First!ers arrested.

10. The continuation of occasional tree spiking ("like putting razor blades in Halloween candy..." – Congressman Bob Smith)

And what did this spasm of uncoordinated resistance get us?

1. Construction on Bald Mountain Road limited to 0.9 miles, and therefore less acreage "salvaged" from the North Kalmiopsis.

2. Revised Forest Service rules allowing for the judicial challenge of turned-back and reoffered timber sales.

3. Extensive media coverage of environmentalists' point of view.

4. Imposed solutions of unprecedented scope by the Oregon Congressional delegation (riders to the Appropriations Bill granting three major exemptions from judicial review), which met unprecedented resistance from both editorial writers in Oregon and members of Congress in DC.

5. The largest logging truck caravan in recorded history (1300 trucks in Grants Pass for the Silver Fire Round-up on August 27, in a show of "solidarity with the timber industry").

Last December, a "sympathetic" Forest Circus official told us that if we filed a lawsuit on the Silver Fire salvage, Senator Hatfield would pass a rider that would be worse than what the FS would choose. "Don't rock the boat, or you'll get burned" was the message.

But we rocked the boat anyway. As a result, old growth forests are a national issue as never before.

Strong arguments backed up by the facts never benefit from compromise tactics. If we don't yell, scream and *act* when things are serious, then who will hear us? Unless we "polarize" the issues and break the conspiracy of silence, business will proceed as usual with the deforestation of the planet. No-Compromise works!

[ed. note: So does natural fire! On August 29, one day before the anniversary of the Silver Lightning Wildfire, a shutdown on logging and road-building for most of the North Kalmiopsis was ordered due to extreme fire danger.]

–Bobcat, Siskiyou EF!

Texas EF! Fights for Endangered Species

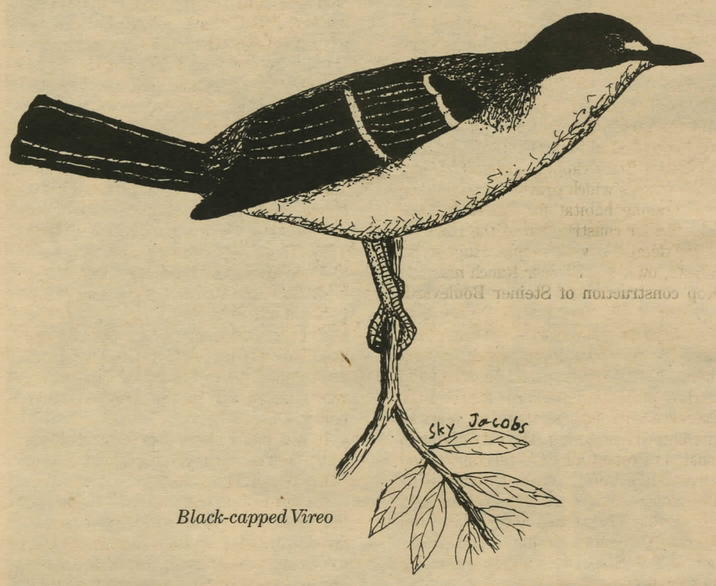
Developers Attack Vireo

The Black-capped Vireo (BCV), a tiny western songbird that makes its summer home in northern Mexico, central and north Texas, and Oklahoma has suffered precipitous population declines for decades due primarily to habitat destruction. On November 6, 1987, the BCV was officially listed as federally Endangered. Texas Earth First!ers were overjoyed, envisioning strong protection and even large Hill Country preserves for the remaining 1000 or so birds. But beyond the brief announcement in the Federal Register, little changed.

We soon found ourselves pitted against money-hungry developers, unmotivated or uninformed public officials, and compromising biologists, all placing the Black-capped Vireo in great danger. The laws protecting the bird were not being taken seriously.

Upon discovering that Hughes Interests, developers of Steiner Ranch (a housing subdivision just outside of Austin), were building a road through seven documented BCV territories, Texas EF! began its campaign for the BCV's protection. In December, we held a press conference on the steps of the State Capitol, where we demanded that all developers and public officials abide by the Endangered Species Act. Within weeks we were embroiled in an issue involving local, county, state and federal agencies, other environmental groups, biologists, environmental consultants, and more developers.

Now, eight months later, a city Threatened and Endangered Species Ordinance is about to go up for its first public hearing before the Austin City Council. Five public agencies, two businesses, and at least six private developers have been given official notice that Earth First! may sue them if they do not mend their ways, and the entire community has been awakened to the plight of endangered species in the Austin Hill Country. This battle is certain to be fought for years, but the following is an attempt to explain the issue at present and Texas Earth First!'s involvement.



Black-capped Vireo

ABOUT THE BLACK CAPPED VIREO

The Black-capped Vireo (*Vireo atri capillus)*, is one of the rarest native Texans, with a population currently estimated at 234 to 525 nesting pairs. Once nesting throughout much of northern Coahuila, Mexico, west and central Texas, central Oklahoma, and into southwestern Kansas, Black-capped Vireo (BCV) populations have declined rapidly in the last five decades. Presently, the only BCVs outside of Texas hail from the Oachita National Wildlife Refuge in Oklahoma (approximately 80 breeding pairs), and from Coahuilla, Mexico (48 to 116 breeding pairs). In Texas, the U.S. Fish and Wildlife Service population estimates range from 188 to 374 breeding pairs.

The BCV's vegetative preferences make the species difficult to protect through traditional processes such as "critical habitat" designation or preserves. BCVs choose a transitional type of vegetation – a stage of growth that exists usually between a time of disturbance (e.g., fire) of a woodland or savannah and its eventual growth to a more wooded condition.

The Black-capped Vireo winters on the Pacific side of the central highlands of Mexico. It typically returns from its winter home between mid March and early April. The males arrive at the colony site one to two weeks before the females. The male locates and establishes a territory, defending it with his song and by darting at intruders. As long as the habitat conditions remain suitable, BCVs tend to use the same nesting site year after year. For example, BCVs have been documented as nesting in the same area of western Travis County since 1920.

Officials and developers rationalize less protection for the BCV by claiming that its "transitory" nature makes its territories hard to define or maintain. Earth First! argues that this very precarious nature of the BCV warrants an upgrading of protection measures. Many biologists are fairly certain, however, that with minimal vegetation management to make up for the lost natural controls, BCV habitat can be maintained and expanded throughout the Hill Country.

THREATS TO THE BLACK-CAPPED VIREO IN TRAVIS COUNTY

The greatest threats to BCVs in Travis County are habitat destruction through land clearing for suburban development, road and utility improvement projects, mechanical brush control, and ranching. Suburban development harms BCVs through direct habitat destruction and through disturbances caused by heavy machinery, additional traffic, introduction of domestic cats and dogs, and pesticide usage. Brood parasitism by the Brown-headed Cowbird, habitat loss through natural succession, and brood predation, especially in rapidly urbanizing areas, also negatively impact the species.

Black-capped Vireo colonies in Travis County are among the most important populations in the entire range of the species. Not only are these some of the largest populations, but BCVs in these populations also show a high record of site fidelity. Studies indicate that the larger and less disturbed a BCV colony, the more successful the individual breeding pairs are at reproducing in that colony.

Of the two large colonies in Travis County, only one is officially protected. This protected colony at Wild Basin Preserve, a private preserve on the western edge of Austin, presently contains approximately 30 breeding BCV pairs. Next door at the Davenport Ranch, biologists have located more breeding pairs. Hopefully, most of the Davenport land containing the BCVs will soon be protected by way of a city preserve.

The other large population is found along Loop 620, near Lake Travis, also west of Austin. At least 29 territories have been documented in past years in this highly dispersed colony. Almost all of the territories border the highway or other roads, most of which are scheduled for widening or relocation in order to "improve" traffic conditions. If present state and county road improvement plans are carried out, all but six to ten of these territories will be wiped out. All will be adversely affected.

Road improvement plans are not the only threat to the BCV in this area, however. Development schemes, both private and commercial, are planned to cover almost all of this beautiful hill country the vireo has chosen for its home. EF! has been battling the Steiner Ranch Development, a 4500-acre subdivision which has already carved the heart out of the Loop 620 BCV colony.

STEINER RANCH

After TX EF! created a media splash about Steiner's vireo- cide activities (December press conference), representatives of Steiner Ranch wanted to meet with EF!. A series of meetings was scheduled between environmental group leaders and Steiner Ranch planners and biologists, to reach "agreement" as to how the birds could best be protected at

Photo by Lucia Athens

Neal Tuttrup greets the dawn and a deputy.

Austin's Underground

mainly by Lou Jost

Our northwest Austin caves, like all caves, have an air of mystery about them. The first steps into the darkness transport us to a different world, a cool silent world of tactile senses, of pale long-legged insects groping for food, of lungless salamanders drifting through imperceptable crevices. We jab the darkness with our sacriligious flashlights and the creatures scatter. Some are refugees from the glacial Pleistocene, surviving here in the last cool shelters left in central Texas. Others are far more ancient. A few have yet to meet this upstart species, *Homo sapiens*.

Our breath condenses on a cave spider's web, and it tears under the weight. The webs are too fragile for the turbulent outside world, so their owners are forever restricted to these caves. Two spider species here are restricted to a single cave, Tooth Cave. Each room conceals surprises. In one chamber, ghostly white millipedes flee our light, in another, scorpions prowl the ceiling. In a remote corner of Tooth Cave a slender worm-like maggot (Diptera: Mycetophilidae), unknown to science until Christi, Neal and I discovered it, fills a crevice with a web as intricate as any spider's.

In Amber Cave, cold air flows from a narrow passage. After removing our clothes to reduce our bulk, we pop through the passage and crawl down a deep bell-shaped pit lined with transparent crystals. At the bottom lie stone arrowheads, apparently left by Indian spelunkers. Translucent white shrimp-like crustacians circle blindly in a puddle on the floor. More passages lead deeper toward the aquifer, but they are only large enough for the mice who use this chamber as a dormitory. We return to the surface.

Back on the surface, we are quickly reminded that these caves are in trouble. Ten feet east of Amber Cave is a deep trench for a wastewater pipeline. Twenty feet west is a temporary gravel construction road. Fifty feet north is a new four-lane boulevard. We are on "The Parke" development project, owned by "620" Investors Inc., whose machinations make the area look like a war zone.

There are about 50 caves and sinkholes on this property. The Parke project and neighboring development projects encompass most of the entire known ranges of five species of cave invertebrates. Even though the Tooth Cave Pseudoscorpion (*Microcreagris texana)*, the Tooth Cave Spider (*Leptoneta myopica)*, the Bee Cave Harvestman (*Texella reddelli)*, the Tooth Cave Ground Beetle (*Rhadine persephone)* and the Kretchmarr Cave Mold Beetle (*Texamaurops reddelli)* have been proposed by the US Fish and Wildlife Service for listing as Endangered Species, the destruction continues. One cave is now buried under a road, and three have been deliberately plugged with cement by the owners of one of The Parke lots, Vista Chemical. Construction and bedrock excavation have altered the water flow between caves and brought in a massive invasion of fire ants. These ants are an aggressive exotic species from Argentina, and are spread through human disturbance of the environment. *Solenopsis invicta* now threatens to eliminate Tooth Cave's fauna. The owners have shown as much appreciation of their caves as a banker shows for a rainforest. Dr. Fred Purcell has threatened to cement in Tooth Cave, one of the biologically richest caves in the United States.

The Austin Threatened and Endangered Species Ordinance will help protect the caves if it can be passed before more Parke lots are sold. But lots could be sold or caves cemented in at any moment, so we cannot wait. As a minimum Texas Earth First! demands a buffer around each cave entrance, large enough to protect the caves from runoff and provide habitat for surface foragers who bring essential nutrients into the cave ecosystems. A good-sized buffer could also protect the caves from fire ants if managed properly.

Lou Jost, once a cave-adapted troglophile, has evolved into an arboreal creature who now dangles from trees in a Costa Rican cloud forest.

[Late note: Shortly before we went to press, Texas EF!ers commenced an occupation of the most threatened of the caves. The "trespassers" announced that they would guard the three caves until federal officials declared the five known imperiled species inside them to be Endangered. This occupation gained national coverage on TV and in newspapers.–ed.]

Cavebugs Listed!

Last second update: On Friday, Sept. 16, the US Fish & Wildlife Service granted an emergency Endangered Species listing for all five species, with federal protection effective immediately. Direct action works!

Steiner. We put away out protest banners for a short while, but we never trusted Steiner Ranch in these meetings.

Steiner Ranch representatives talked of setting aside a corner of their property as a BCV Preserve (a paltry 115 acres out of 4500). Of course this was not enough for EF!. We demanded that they not only establish a large, permanently protected area for the vireos, but that they completely remove the Steiner Boulevard.

Soon after our initial cry of protest in December of 1987, agencies began looking at the activities on Steiner Ranch. Surprisingly, on January 26, 1988, the Army Corps of Engineers temporarily stopped the work on Steiner Boulevard by issuing a "Cease and Desist Order". For 42 days, construction was halted on certain parts of the road while the FWS prepared a biological opinion concerning the road construction's effect on the birds.

According to the Corps, however, they only had jurisdiction to halt work "within waters of the United States," and not necessarily in BCV territories. Since BCVs tend to locate on cliffs, ridges, and upland plateaus, construction was allowed to continue in or near all of the territories. After the FWS reviewed the situation and certain biostitutes (working for Steiner) were consulted, FWS issued a "probably no jeopardy to the species" opinion. A nationwide Section 404 permit (under the Clean Water Act) was issued to Steiner Ranch. It was, in essence, a free ticket to violate the Endangered Species Act.

During March and April, EF!ers Neal Tuttrup and Christi Stevens monitored the area for the vireos' return from Mexico. Once they spotted birds attempting to establish old nesting territories on Steiner Ranch, EF! immediately asked the developers to stop construction, as they had originally promised. They refused. A couple days later at the break of dawn, twenty EF!ers were there to stop construction. This demonstration landed three EF!ers in jail and caught the eye of the community once again. (See protest article by Christi Stevens.)

SUE 'EM ALL

Soon after our demonstration in early April, we realized that not only was Steiner in violation of the ESA, but other developers and agencies were in violation, or were planning activities which would also violate the ESA. On April 21st, TXEF! sent out 60-day Notices of Intent to Sue under the Endangered Species Act to seven private developers, the City of Austin, Travis county, the State Department of Highways and Public Transportation, the Federal Highway Administration, and the US Army Corps of Engineers. All of these entities were potential or actual violators of the ESA.

Three private developers, 620 Investors Ltd., Parke Investors Ltd., and Land Concepts, Inc., had cleared vegetation within a documented BCV nesting territory along Loop 620, in order to lay wastewater and water lines. Apparently, plans for the installment were approved by the City's Department of Environmental Protection (DEP) as late as Feb. 11, 1988. The bulldozing, drilling, and other construction activities began just weeks before the birds were to return from Mexico and continued on past the expected return period. This bird was never seen back in his territory.

Another proposed development in the area, "The Horizons," located on Comanche Trail just across from Steiner Ranch, includes a hotel, condominiums, and commercial businesses. The entire project would destroy or disturb all nine BCV territories along Commanche Trail, which represent the heart of the larger Loop 620 colony.

Travis County, through its plans for relocating and improving Comanche Trail and Bullock Hollow, both sites of BCV territories, and through its authority to control land use and development, is also a potential violator of the Act. The City of Austin, like the County, is a violator and a potential violator of the Act, through its land use control authority. In particular, the City approved the placement of Steiner Boulevard and the 620 Investors' utility lines.

A path staked out by Southern Gas Company to bury a gas line to serve Steiner Ranch crossed through at least five active territories. This one we have stopped at least temporarily by putting pressure on Steiner Ranch, the City, and the gas company.

A local Water Control and Improvement District's plans to relocate a water line would have cut through four BCV territories. After discussions with EF!, the District delayed their plans until a route could be designed that would not impact the vireos.

Beyond all of these small projects, which combined could nickel and dime the colony to death, perhaps the greatest threat is the proposed widening of Loop 620. This alone would destroy at least two thirds of the territories.

The State Department of Highways and Public Transportation at one time took the position that "the Endangered Species Act does not apply to them because they are a state agency." This statement came in a reply to a question I had addressed to Joe Tyson, the staff "ecologist" about whether they would halt road construction occurring in active vireo territories during the most critical period of the bird's stay.

Perhaps our greatest concern at this point is that the utility companies and others will take advantage of the birds' departure in September to rip through their territories. What all parties must understand is that even if the birds are not occupying their territories in the winter, they are still occupied territories and are therefore protected by the ESA. To that end, EF! sent out a new round of 60-day Notice letters to three more developers and four utilities. At the same time, we sent out a new Notice letter to Steiner Ranch threatening to bring suit under the Clean Water Act for violations of their 404 permit.

THE FUTURE

The City of Austin and other involved parties will continue to permit and promote BCV habitat destruction unless it appears in the news. The FWS's Regional Habitat Conservation Plan will not save the BCV. It must be conservationists – fighting tooth and nail on their own time – who will ultimately save the Black-capped Vireo.

WHAT YOU CAN DO

Write the USFWS and demand that they formulate a Regional Habitat Conservation Plan emphasizing preservation of BCV habitat. Mitigation has not been effective. Suggest that outright purchase of BCV habitat is the best solution.

Write to the Mayor and City Council of Austin and urge them to pass the City Threatened and Endangered Species Ordinance. Tell them that you would like to visit a city that shows such appreciation for its natural heritage.

Michael Spear, Regional Director / US Fish and Wildlife Service / POB 1306 / Albuquerque, NM 87103

Council Members and Mayor / 124 W 8th / Austin, TX 78704

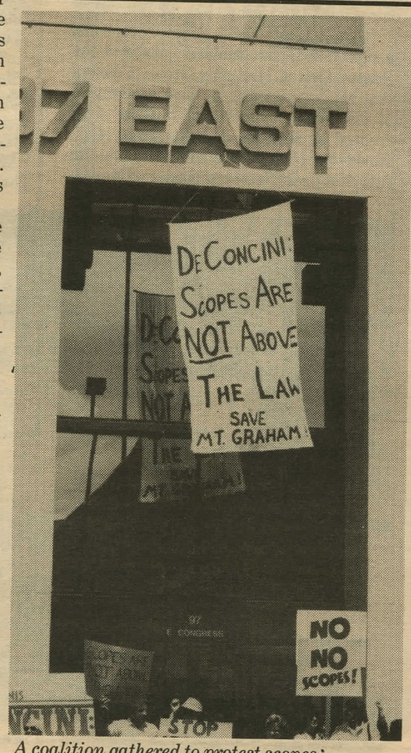


Photo by Rod Mondt

A coalition gathered to protest scopes, but EF! decorated the building.

Daybreak Dozer Occupation

by Christi Stevens

At 5:45 we were on our way to Steiner Ranch. After being dropped off, we scrambled up the embankment and dashed across the road. Neal locked onto a backhoe by the construction trailer. Barb locked me onto a dozer and disappeared to lock up Jean. By 6:50, we had immobilized three earth rapers.

Soon thereafter about 25 protesters joined us. The media photographed our locked necks (the standard "Bugis maneuver"), and demonstrators waved signs reading "Save the Black-capped Vireo," "No Deal, Assholes," and "Hands off the Hill Country." Others dug into the dirt road and planted Shin Oak trees, a favorite of the Black-capped Vireo. This and other species which provide vital nesting and foraging habitat for the BCV were removed for construction of the road.

Our demands were simple. Hughes Interests, owner of Steiner Ranch must: 1) Stop construction of Steiner Boulevard. 2) Expand the fragmented Preserve to include all BCV territories on Steiner and large buffer/recruitment zones around them. 3) Establish permanent, legally binding protection measures for the BCV Preserve with no less than ten years of guaranteed monitoring. The City of Austin must: 1) Protect all BCV territories and surrounding buffer zones, through wildlife management areas or easements. 2) Pass a City Threatened and Endangered Species Ordinance prohibiting degradation of T & E species' habitat – allowing no variances.

Don Bosse, PR Dude for Hughes Interests, didn't think much of our demands. "Un-FUCKING-believable," he told the *Austin American Statesman* reporter. "I can't print that, Don," explained the responsible journalist. "Well then print this – un-FUCKING-real!" screamed Bosse. He called the cops.

Soon the Travis County Sheriff's office arrived. The head officer tactfully explained to the crowd that if they didn't leave within three minutes, he would start arresting people for criminal trespass, a class B misdemeanor. The law-abiding demonstrators took the signs out to the highway to show rush-hour traffic what scum Hughes Interests is. A deputy asked me if I was going to leave. I replied that I could not, being locked by the neck to this hunk of pig iron.

A locksmith with huge boltcutters arrived. I was smug: "It won't work," I told her. She heaved with all her might. Lou held my lock to keep the force from twisting my neck. "OK, that's enough," said a deputy. A small notch remained, a memento.

"They're going to bring out the 'Jaws of Life'," a cameraman told me. "Sounds scary," I said and hummed the Jaws movie theme. A truck from the Volunteer Fire Department drove up to Neal's dozer. They started setting up a fearsome hydraulic machine. I couldn't see him through the crowd, and then he stepped away from the machine. He was handcuffed and led away. Then they came for me. The cops told me they had used the machine on Neal's lock, but that it was dangerous and I should unlock myself. Lucia flashed the key at me. Not wanting to waste another lock, I allowed myself to be led away. Soon, Jean joined me in the police car and we were hauled off to the Travis County pokey.

It was but a short nap in the holding cell. "You're sprung," explained a cop. "They're not filing charges."

A crowd of demonstrators outside the jail greeted us, and we headed to our favorite drinking establishment to see ourselves on the noon news. We critiqued the action. In retrospect, we should have used a member of our support crew to shuttle messages so we could have made a group decision. As it was, the decision was left to a single person surrounded by cops and cameras. Had we stood together against their pressure tactics, we could have cost them a few more hours of down time.

But it was hard to regret our lapses when we made headline coverage on the evening news of all three TV stations and front page of the *Austin American Statesman* and the *Daily Texan*. We have brought the BCV's plight to the attention of the entire community.

Mount Graham

by Raven (a whole flock) Madd

The Arizona Board of Regents and the University of Arizona want to jam an astronomical complex in the midst of a unique Pleistocene relict forest that nurtures a federally Endangered Species – the Mt. Graham Red Squirrel (or Mt Graham Spruce Squirrel). Unable to manipulate either the Forest Service environmental impact statement or the US Fish and Wildlife Service biological opinion, the University has convinced three Congressmen to gut the Endangered Species Act, by-pass the National Environmental Policy Act (NEPA), eliminate the public from the public review process, and keep the public off public lands – all by a quiet "rider" attached to unrelated Congressional bills.

The Pinalenos (Mt Graham), an island mountain range and part of the Coronado National Forest, are the tallest mountains in southern Arizona. (See Mt Graham articles in last issue and previous issues.) The peak areas contain the southernmost spruce/fir forest in North America, the southernmost glacial features in the United States, two sacred Indian sites from about 900 AD, a dozen insects new to science, as well as the Endangered subspecies of Red Squirrel which is at the southernmost limit of the Red Squirrel's distribution. The Pinalenos have the densest remaining Black Bear population in the Southwest, one of the best protected Mountain Lion populations, federally Threatened Apache Trout in perennial streams (rare for the desert), eight plants found nowhere else, two unique snails, Peregrine Falcons (an Endangered Species), Spotted Owls, and the most dramatic gradient from desert to "arctic" conifer forest in all of Arizona. For years the proposed Wilderness Area for the Pinalenos has been held up in Congress because of the University of Arizona's scheme to take control of the most intact peaks of the range.

Before the astronomers arrived, parts of the Pinalenos were hammered by other special interest groups: timber cutters, cattle grazers and hunters. The timber cutters harvested enough forest – including 15% of the squirrel's best spruce/fir habitat on the peak areas – to reduce the Red Squirrel population 50-80%. By the 1970s, the squirrel was reported extinct. The FS did not halt this environmental damage until a few years ago. This year, slightly over 200 of the squirrels may be alive. But, because all rodents go through boom-and-bust cycles, the species is considered in extreme jeopardy. A series of bust years could send it to extinction. The University wants to place its new road and telescopes within the best Red Squirrel habitat.

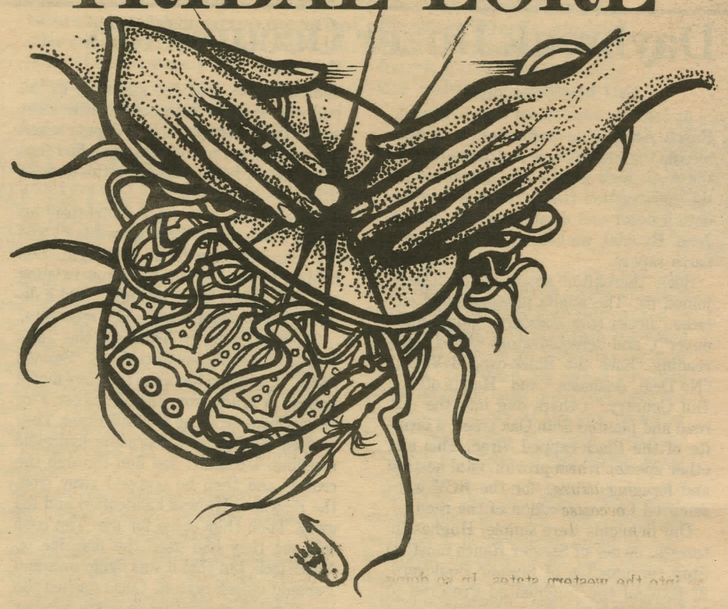
In the 1940s, hunters convinced the Arizona Game and Fish Commission to release a bigger, fatter squirrel, the Tassel-eared Squirrel, into the Pinalenos. This foreign squirrel may out-compete Red Squirrel juveniles for winter food. Now, however, the hunters have joined the 34-group Coalition for the Preservation of Mt. Graham. The Coalition faces a Big Boys network that is trying to circumvent laws it took Congress years to enact. Even the supposed environmental champion Mo Udall won't reject the Congressional rider and, it is rumored, is writing one of his own. (Udall has also helped keep the peaks from designation as Wilderness.)

The University has spent over one-half million dollars of state taxpayers' money promoting the astronomical complex. They have spent state and federal taxpayers' money on a huge disinformation campaign that appears to have convinced Arizona Senators John McCain and Dennis DeConcini and Representative Jim Kolbe to participate in another act of Washington environmental deceit.

The deceit comes in the form of a Con-

continued on page 31

TRIBAL LORE



NATURE ATTEMPTS TO ERASE PARK SERVICE MISTAKES

The severe fire season in Yellowstone National Park has burned over 150,000 acres as of mid summer. [*As of September 10, newspapers report that fires have now burned over 1,000,000 acres in the Yellowstone area. —ed.*] Both Grant Village and Old Faithful nearly burned. Flames came within yards of Grant but were turned back by fire crews which clearcut the area surrounding the condos, restaurants and rubber tomahawk shops. One Park ranger observed that "The Park Service had a chance to redeem itself by letting Grant burn to the ground but chose instead to protect it — probably due to 'pressure' and fear of concessionaire lawsuits."

Meanwhile, on the Park's northern border, hundreds of devotees of the Church Universal and Triumphant (CUT) chanted to turn back the flames of the Fan fire which were approaching the site of CUT's retreat on Mol Heron Creek. Even as NPS fire crews fought the nearby blaze, CUT leader Elizabeth Clare Prophet lambasted the NPS for their "let burn" policy which allowed the flames to approach CUT land. She suggested the NPS instead control fires and harvest timber in Yellowstone for profit.

—Phil Knight, Wild Rockies Earth First!

Range Rover Regrets

Outcry sparked by the recent Range Rover ad ("Celebrate the birth of Henry David Thoreau: drive a Range Rover through a pond") has made the company shift quickly into reverse. In letters sent to those who complained, company president Charles R. Hughes states "There is little point in having a vehicle that can explore the far reaches of the world if when you get there they are spoiled... The ad in question can be interpreted many ways but it was never our intent to promote behavior that would adversely affect the environment. The ad will not appear again."

Senate Passes Endangered Species Act

On July 28, the Senate passed reauthorization of the Endangered Species Act by a vote of 93-2. This follows House passage (399-16) last December, and leaves only conference committee action to work out minor differences between the House and Senate versions. Assuming both houses pass the conference version (an easy bet) and that Reagan lets it through (also likely), this will be a four-year reauthorization with substantially increased funding (from $29.2 million in 1987, the Senate version jumps to $61 million for 1989, with 4.3% annual increases thereafter).

The new act will greatly increase protection for endangered plants, providing federal backing for state rare plant programs. New provisions would also reduce the backlog of candidate species (those awaiting official listing), and provide some interim protection for them.

Anticipated amendments to weaken protection of Grizzly Bears and Gray Wolves were never introduced, but the fishing industry won a major victory over Endangered sea turtles. An estimated 10,000 turtles drown each year in shrimp nets, deaths that could be prevented by use of small and inexpensive Turtle Excluder Devices (TEDs). The Senate bill was amended to delay required use of TEDs until 1989 for off-shore waters and until 1990 for in-shore areas. (from *Audubon Activist*)

In a related event, a federal appellate court in Minnesota declared that the federal government must consider the impact of any government-financed projects overseas on Endangered or Threatened Species. The landmark ruling, which had been bitterly contested in a long lawsuit initiated by Defenders of Wildlife and The Humane Society of the United States, requires agencies to consult with the Interior Dept. in order to protect listed foreign species (of which there are about 600). Interior had issued regulations that effectively ignored federal impacts on Endangered Species outside the U.S. (-*Monitor*)

Florida Panther Reintroduction Plan

The US Fish & Wildlife Service intends to gather information necessary for the preparation of an Environmental Assessment for the proposed reintroduction of the Florida Panther into areas within its historic range. Because of persecution, mainly through hunting and trapping, and habitat losses, the only known viable (perhaps) population of the Panther inhabits the Big Cypress Swamp/ Everglades region of south Florida, where an estimated 30 to 50 individuals survive.

Because the Florida Panther is listed as an Endangered Species under the provisions of the Endangered Species Act of 1973, as amended, a recovery plan has been prepared and was approved by the FWS in 1981. Successful reintroductions will be crucial to achieving recovery for the Panther. The experimental reintroduction area consists of approximately 1,180,800 acres in Osceola National Forest, Okefenokee National Wildlife Refuge, and adjacent private/corporate lands in Florida and Georgia. It is anticipated that the final decision on reintroduction is 3 to 4 years away.

Written comments and information were to be received by Sept. 20, 1988, but late submissions are usually considered. Write to: James Pulliam, Regional Director, FWS, 75 Spring St, SW, Atlanta, GA 30303. (*Federal Register*, 7/ 22/88)

OCEAN STRIPMINING PLANNED FOR HAWAII

The US Department of the Interior plans to lease large tracts of the ocean seabed surrounding the Hawaiian Islands to be stripmined for cobalt and other heavy metals. Leases for exploration may be made as early as November 1988.

Plans include dredging up the manganese crust on the ocean floor, grinding the crust, and pumping it to factory ships. This operation will stir sediments up from the ocean floor, and each ship will dump 4700 tons of sediment each day, some of which will remain suspended in surface waters for up to 49 years. The crust sediments are rich in heavy metals and contain cadmium, arsenic, lead, and selenium. Most of this ocean bottom stripmining will occur around ocean seamounts, which are important fish spawning areas.

Plans also include construction of a cobalt processing plant on either Oahu or Hawaii. This facility would release over 50 million cubic meters of acidic gas discharge and over 150 million gallons of wastewater annually. It would require 900 acres of toxic waste sludge disposal ponds and construction of additional coal or geothermal electricity generating plants.

The Department of the Interior has prepared a draft environmental impact statement on the "Proposed Mineral Lease Sale," from which the information above is taken. Blue Ocean Preservation Society (formerly "Save Our Seas") cites additional dangers of the proposed lease sale:
*There may be extensive adverse impacts on Hawaii's fisheries, sensitive coral communities and endangered marine mammals due to the dispersion of sediments with significant toxic content.
*There will be unacceptable levels of air, water and land pollution from primary metals processing facilities.

To help stop this mining, contribute to Blue Ocean Preservation Society, 1325 S Kihei Rd, Ste #114, Box 1030, Kihei, Maui, HI 96753.

VICTORY FOR THE LOONS

Minnesota EF!ers had a pleasant vacation in the Superior National Forest near a proposed 4.8 million dollar condominium complex site that was recently canceled. The site (one-fourth mile from the Boundary Waters Canoe Area Wilderness) on Burntside Lake would have been built in prime Common Loon habitat and near Gray Wolf populations.

Minnesota EF!ers learned of the cancellation after arriving in the area. Sixty pounds of cement brought along for drain pipe adjustments will be used elsewhere.

–Andy Sudbrock, Twin Cities EF!

McKINLEY GROVE: ANOTHER CIRCUS GARBAGE DUMP

The sad details of the desecration of McKinley Grove and SAFE's losing fight to prevent it were reported by High Wood in the *Earth First!* Spring Equinox edition. Tim Kapral and I decided to see the Forest Service's carnage for ourselves.

McKinley Grove – what's left of it – is the only stand of redwoods between Yosemite and Sequoia Parks. Sierra redwood makes more expensive boards than its Coast Range relative.

I had visited there in the spring of 85, just before the Circus's crash and slash offensive. At that time there were dozens of redwood seedlings planted throughout the area. Today two dead and one dying seedling remain.

The area within fifty feet of the road is cleaned up and to the casual passerby wreckage is hardly apparent. Clearcuts can't be seen from heavily traveled roads through Circus turf, but walk a hundred yards inland and, lo and behold: Desert!

"Give a Hoot! Don't Pollute!" squeaks a sign next to the chemical shitter in the cleared area of McKinley Grove, a slogan that has to rank with the classic examples of new-speak hypocritical rallying cries created by Madison Avenue clones since World War II. For once you get inside the fifty foot prettified road border of McKinley Grove you find areas flattened three years ago that no vegetation has the strength to rise above, piles of blackened limbs where some conservationist had poured on dinosaur juice and ignited it when the wood was still green and left the singed bark as a testimony to Progress.

"Give a Hoot! Don't Pollute! translates into: "DON'T GIVE A DAMN! PROMOTE THE SCAM!"

–JP Bernhard

TUOLUMNE DEVELOPMENT MAY BE IMMINENT

The Yosemite rumor mill is buzzing with the word that a development plan for Tuolumne Meadows is being formulated, but the officials creating this vision of the future are apparently trying to keep it from the public. Rumors suggest plans include an enlarged visitor center, store and accompanying parking area and permanent housing structures.

Again this is all rumor, so I urge you to inquire for yourself. Write to the head puppet and ask him if indeed there is a plan to further develop the largest sub-alpine meadow in the Sierra Nevada. Request that a copy be sent to you, if it exists, then give it an Earth First! critique. Write: Superintendent Morehead, Yosemite NP, Yosemite, CA 95389.

HEADS UP, WEST VIRGINIA

The Laurel Creek Development Corporation wants Big Spruce Knob, currently National Forest land in the Allegheny Mountains of West Virginia, for part of a massive private ski resort. The Forest Disservice appears willing to "trade" this pristine *public* land for three separate parcels of land owned by the corporation. If the LCDC is able to acquire this land, only a select number of wealthy people will have access to this area – "membership only" to the tune of $15,000 plus annual dues of $1250. "We're not for everyone," Jim Whitteron, Laurel Creek partner and general manager said.

The resort would include two golf courses, 32 ski trails with six ski lifts, 246 cottages, skeet and archery ranges, a tennis club, an ice skating rink, a snowmobile center, an athletic club/spa, five restaurants, and a heliport. The resort would also feature interpretive signs for "nature and environmental trails." After all that, what's left will need interpretation. Of course they will have a "security staff," to make sure no commoners enter.

What will all this development threaten? The headwaters of the Williams River is 1/4 mile from the Big Spruce Knob area. Roads are planned to go to the top of the 4,673 foot mountain, making these headwaters susceptible to visitation and destruction by the up to 3,500 elect owners plus family and guests (who must be approved by the owner). Construction and run-off may affect the native trout of Day's Run. The Cranberry Wilderness Area and Black Bear Sanctuary is two miles from the Big Spruce Knob area and may suffer from heavy helicopter traffic. The last confirmed Mountain Lion track in West Virginia was found on Kennison Mountain, in the same county as Big Spruce Knob, and the many recent reported sightings may cease. The nearby Handley Public Hunting and Fishing Area's wildlife and habitat could also be harmed. Other impacts involve water de-

Sign correction in northern Wisconsin on Muir Day.

mands, sewage, and extra traffic and construction on Route 17.

In a letter this April, a representative of Forest Supervisor Jim Page writes of the deal as if it is already a forgone conclusion, and refers future questions to the District Ranger. This, under Forest Service letterhead that reads, "Caring for the Land and Serving People."

Why has the Forest Service not made public the proposed acquisition of this land? This deal would set a disastrous precedent for the abuse of our National Forests.

Express your outrage at this proposed swap to: Jim Page, Forest Supervisor, Monongahela National Forest, Box 1548, Elkins, WV 26241-1548. Also: Laurel Creek Club, 119 West Washington Street, Lewisburg, WV 24901, phone 800-255-1304 or (304) 645-4179.

–Karen Coulter

TIMBER LEADERSHIP DECLARES HOLY WAR AGAINST "HEATHEN" ENVIRONMENTALISTS

It's a story that could be entitled "Jerry Falwell meets Paul Bunyan."

In an industry memorandum of 6/27, sent from the Timber Association of California to its members, a new twist was added to the already heated battle between environmentalists and the industry. The memo announced the merger of the two dominant timber lobbying groups in Sacramento. Enclosed with it was a paper by Senator H.L. Richardson calling for renewed efforts "to take dominion over the earth," in a clear message that right-wing religious fundamentalists have a prominent leadership role in the timber industry.

William Dennison, President of the Timber Association of California, stated that the paper, "Confrontational Politics," offers "a basic guideline of positive confrontation for much of what lies ahead." While the document was not written with timber issues specifically in mind, Dennison clearly meant to apply it to current environmental battles. Environmentalists have noted that the timber industry has been on the offensive recently and the memorandum confirms suspicions that a new, aggressive push has become formal strategy.

The paper delineates the opposing sides: "The battle is between those who differ over the origin of man." It also fondly recalls "the days we knew the difference between a heathen and a civilized man..." It also listed political misfortunes such as "Social Security, food stamps, OSHA ... so-called equal opportunity employment practices..."

Earth First!er Darryl Cherney responds that, "I'm in complete agreement with Dennison and Richardson that this is a battle between the evolutionists and creationists. Pacific Lumber and all the big companies are cutting the forests down just like God was going to re-create them in six days. I am joyous that the timber industry has revealed their manifest destiny in print as I believe the American public will not buy a line that has God approving the deforestation of the Earth."

Cherney, fearful that church has been mingling with state in at least the CA Dept. of Forestry, has confronted Pacific Lumber foresters on the creationism issue. On July 21, five environmentalists attended a tape-recorded Dept. of Forestry meeting where five Pacific Lumber plans were up for review, two involving virgin redwood forests. Cherney asked the Pacific Lumber foresters present, "Do you believe the Earth to be 7,000 years old or 3 1/2 billion years old? They refused to answer.

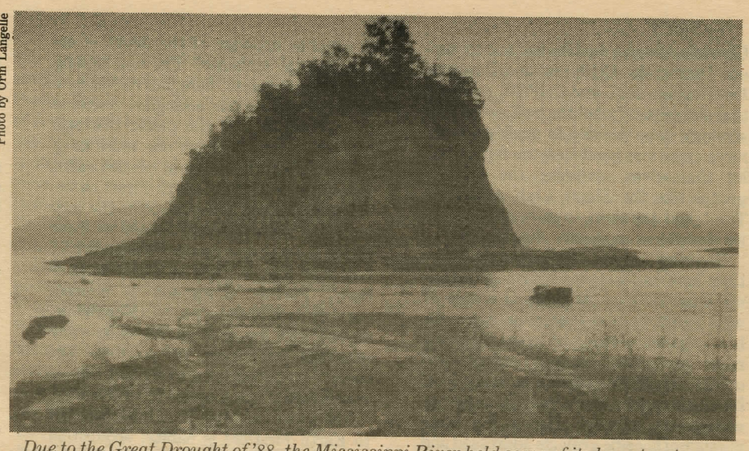
FREE TRADE THREATENS WILDERNESS

"Free trade?" Sounds good, whatever it is. We believe in freedom. "Free the condor." "Free the Elwha." "Free trade." It's got a ring.

Unfortunately, that ring is the death knell of wilderness in North America. It ends forever chances to establish on this continent sustainable societies which preserve large areas of wilderness. It finishes hopes of rehabilitating US habitat and successfully reintroducing species from Canada.

Tom McMillan, Canadian Environment Minister said, "Nothing works economically unless it works environmentally as well." Yet the Canada/United States Free Trade Agreement reads as if it were put together by men who had never heard of the Brundtland Report.

Photo by Orin Langelle



Due to the Great Drought of '88, the Mississippi River held some of its lowest water levels in recorded history. Tower Rock (20 miles north of Cape Girardeau, MO) was already accessible by wading in early June. This was an Indian stopover point for prayer before crossing the rocky rapids (pre-Corps of Engineers). The top of the rock is covered with wild prairie grasses mixed with trees, demonstrating what the area looked like before the encroachment of western European culture. Fishermen along the Mississippi River are reporting remarkable success because of the low water, but the health departments warn that chlordane levels are higher than safe on most fish, especially bottom feeders.

The Free Trade Agreement perpetuates the illusion that economic growth and increased consumerism are desirable and that the Canadian environment is a "resource." Under the Free Trade Agreement, the US is promised access to the resources of Canada. Canadian consumers are offered cheap goods and Canadian companies enticed with promises of selling their wares on the US market.

Under the Agreement, power generated in Canada will have to be sold at a flat continent-wide rate. This will entail huge hydroelectric developments and, probably, nuclear reactors built for power to export. Such power will, of course, undermine conservation efforts in the US.

US industry's access to the forests of British Columbia, coupled with the cut-and-run mentality of the BC Forest Service, means accelerated depletion of BC's forest cover. Years of lobbying to preserve such magnificent wilderness areas as the Stein River Valley, Meares Island, and the South Moresby Islands will be lost to the whine of the chainsaws.

Among the chief concerns of Canadian environmentalists are the Non-Tariff Barriers in the Agreement. "Barriers" to be eliminated include quotas or subsidies which might give the industries of either country an edge in the market. The Federal government in Canada provides funds for forest companies to replant. It gives tax incentives for companies which alter their processes to decrease pollution. Under Free Trade, these will be deemed unfair subsidies. Presently, should the Weyerhaeuser pulp mill in Kamloops change to an oxygen from a chlorine bleaching process, it would be eligible for a tax break. After Free Trade is in effect, such an incentive would be disallowed. Free Trade promotes pollution. Legislation regarding acid rain and plant emissions is stronger in Canada. Environmental policies inevitably affect comparative advantage by increasing costs; they will be the first to go. The Ontario Chamber of Commerce is already exerting pressure to relax the acid rain rules and other pollution laws to help Canadian businesses compete with their US counterparts.

Relaxation of pollution laws in Canada, combined with growing waste disposal problems in the US, could lead to Canadian pollution havens. Already, a consortium which includes the well- known US company, Ensco, is planning to build a hazardous waste incinerator far larger than is required for the small amount of waste generated by BC. Also, a dump is proposed which would accept municipal and industrial refuse from within a 1100 kilometre radius. This distance includes Idaho, Washington, Oregon and Montana. And BC entrepreneurs are already touring the US West assuring Americans that BC residents will open their hearts and lands to radioactive waste.

Nor is this the worst Free Trade has to offer. At the recent economic summit, US senators from western states stated that President Reagan had been told to ask Prime Minister Mulroney for NAWAPA. NAWAPA, the North American Water and Power Alliance, has been a nightmare of western conservationists for over a decade. Briefly, it would turn northern flowing BC waters south through the Rocky Mountain Trench and so into the western states. In so doing, it would flood western habitat and several sizable BC communities; however, that hasn't stopped the BC government before. What are the chances of rehabilitating the public lands in the West if cheap Canadian water permits present cattle grazing practices to continue?

An even more ambitious, or mad, inter-basin water transfer programme, the Grand Canal project, is proposed for the eastern part of the continent. A 160 kilometre long system of dykes and causeways across James Bay would turn it into a 70,000 square k reservoir of fresh water. Its contents would then be diverted to the Great Lakes through a series of canals, dams, and underground tunnels. The 640 k journey would require 10,000 megawatts of electrical power. Nuclear power stations are suggested to provide that power. This plan would take ten years to complete, dwarf the Apollo moon project in size, and cost $100 billion, paid by the American tax-payer or consumer. [As reported in past issues of *EF!*, much of the work on the related James Bay Project has already been completed, and has proven disastrous for wildlife and native peoples in the area.]

The ecological impacts of such massive water diversions on the ecosystems of North America, particularly the fragile northern ones, would be equaled only by the clearing of the tropical rainforests. Many of North America's intact ecosystems are in Canada. Why did Canadians vote for a government which would destroy them? We didn't! Prime Minister Mulroney and the Conservatives ran on a platform opposing Free Trade; but once in office, they negotiated the nefarious Agreement, which must be ratified by both countries by December 31, 1988.

John Turner, Leader of the Opposition in Canada, has courageously asked the Canadian Senate to stall approval of the Agreement and force an election on the issue. He has been successful. We anticipate an election soon. In the US, the Agreement has been approved by the Senate Finance Committee and the House of Representatives Ways and Means Committee. It now must be ratified by the full House and full Senate.

In this election year it is up to ecologists on both sides of the border to tell politicians that preservation of wilderness is more important than a Cuisinart, that we want a conserver, not a consumer society, that prior to even a portion of such an agreement being implemented, we demand a continent-wide environmental impact statement.

The ecosystems of North America are not for sale. Nor for trade.

WHAT YOU CAN DO

Write to your elected representatives (in the US: senators, US Senate, Washington, DC 20510; representative, House of Representatives, DC 20515) and tell them to oppose the Free Trade Agreement. Warn them that it threatens North America's last wild places.

–Trudy Frisk, British Columbia

SIUSLAW PLAN IS AN OUTLAW PLAN

The Siuslaw National Forest in the Oregon Coast Range consists mostly of low-elevation mountains (up to 4000 feet), but also contains approximately 27,000 acres of sand dunes and wetlands along the coast. Before white settlers arrived here, it was a land of ancient Sitka Spruce and Western Hemlock, Grizzlies, Elk and Cougar. Now it is a land of clearcuts, roads and slash burning.

The Forest Service boasts that the Siuslaw is the most productive National Forest in the country on a per-acre basis. This is not surprising, considering the bulk of the local population has been cutting trees for a living for decades.

In a recent bulletin updating the progress on the pending draft environmental impact statement (DEIS) for the Siuslaw, the Forest Service revealed that most of the comments received emphasized that the Forest Service's preferred alternative (Alternative E) would not allow enough timber production. It appears from this response that Oregonians favor short-term profit at the cost of long-term destruction.

In the DEIS, the FS tries to justify clearcutting as an effort to increase grazing opportunities for Roosevelt Elk. They imply that without the clearings provided by cutting, the Elk herds would decrease. They fail to mention, however, that 1) hundreds of natural meadows already serve this purpose (not counting the many existing clearcuts), and 2) Elk also require many cool, secluded areas during warm days in late summer and early fall.

In addition to the forests in the Siuslaw, the beaches and wetlands are threatened. There are five proposed Research Natural Areas (ecosystems protected to study plant and animal species in their natural conditions), two of which face major opposition by the off-road vehicle thugs. Since Threemile Creek and Tenmile Creek are the only proposed RNAs that lie within the Oregon Dunes National Recreation Area (a popular spot for ORVs), they are receiving the most opposition. These areas must be protected as RNAs to guard them against future development and ORV commotion. The existing 1.5 mile sand road through Threemile Creek should be closed.

The Forest Service's preferred alternative for the Siuslaw is typical of National Forest plans. It sacrifices habitat protection for the Northern Spotted Owl, Snowy Plover and several Threatened or Endangered species (Oregon Silverspot Butterfly, Bald Eagle, Peregrine Falcon) for the sake of timber production. The best

continued on page 10

Photo by D. Mitchell

Suislaw NF clearcut near the Little Nestucca River.

Tribal Lore . . .

Continued from page 9

alternative presented is H, which offers the lowest amount of timber production. It also provides protection for the most habitat for the Spotted Owl and Bald Eagle, and reserves the most acreage for undeveloped areas (Research Natural Areas and Special Interest Areas).

Although the official comment period for the DEIS has ended, letters in favor of Alternative H may still help. By the time this article is printed, the FS will have released a supplement to the DEIS, which includes a No-Action Alternative that will represent "the direction of current management plans" This addition resulted from an appeal filed by the Northwest Forest Resource Council, a timber industry trade association. Since technically the FS will only accept comments regarding the No-Action Alternative, letters should contain specific demands to improve upon the current level of protection for old growth stands, RNAs and other wildlife habitat within the Siuslaw. Send comments to: Forest Supervisor, Siuslaw NF, POB 1148, Corvallis, OR 97339.

–D. Mitchell

BEAR FLAGGERS ENJOY FLASH OF LUCIDITY

by Mark L. Williams

Elections usually bring bad news to Earth First!ers – and Earth in general – since, inevitably, politicians win them. Last June's primary in California, however, brought rare glad tidings as the largest wilderness bond measure ever put to voters passed by an overwhelming margin.

The initiative in question was Proposition 70, a bond act allocating $776 million for the purchase of threatened habitat, protection of wetlands, protection of urban parkland and exurban greenbelts, enhancement of fisheries, tree planting in cities, trail development, and even historic building preservation. Something for everyone, but that's why groups like the San Diego Building Industry Association and the Santa Cruz County Farm Bureau supported an initiative that includes among its worthy projects $4 million for old growth redwood and mixed-forest preservation in the Mattole River watershed in Mendocino and Humboldt Counties, $4 million for riparian wildlife habitat along the Sacramento River, $25 million to establish an East Bay Shoreline State Park in the Bay Area, $14 million for wetland habitat among San Luis Obispo's Nipomo Dunes, and $5 million to expand Anza-Borrego State Park. Not all the money is already earmarked: The state Fish and Game Department's Wildlife Conservation Board will administer some $50 million for acquisition of habitat yet to be determined, about which, more later.

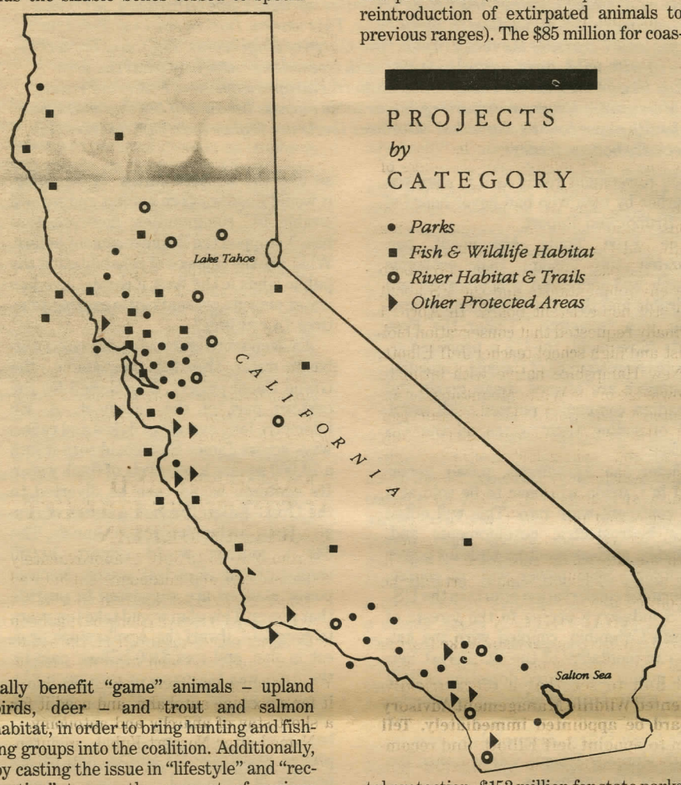
Californians for Parks and Wildlife (CalPAW) distributed a brochure in support of Prop 70 which mentioned the following favorable examples of preservation efforts entailed by passage of the initiative:

Southern California:
**Restore Los Angeles County beaches*
**Expand Baldwin Hills State Park*
**Protect the Tijuana and San Dieguito River Valleys*
**Enlarge the Laguna Beach and Irvine Greenbelts*
**Preserve habitat and parks in the Santa Susana Mountains*
Central California:
**Protect Central Valley wetlands*
**Preserve Hope Valley near Lake Tahoe*
Bay Area:
**Expand Mount Diablo, Coe, and Mount Tamalpais State Parks*
**Preserve wetlands in San Francisco Bay*
Superior California:
**Add to Redwood State Park System*
**Establish new parks in Lake, Humboldt and Mendocino Counties.*

In addition to these individual projects, Prop 70 provides funds to every California park agency to buy new park land and develop recreational opportunities at existing parks....

The genesis of Proposition 70 came when the state's Planning and Conservation League (PCL) and Californians for Parks And Wildlife failed to get a modest $50 million environmental bond measure through the state assembly. Compromise, luckily, failed when Putzy Pat Nolan, Republican minority leader from Klan-rich Glendale, nixed a deal hacked out by various Democrats, GOPpers, and Governor Deukmejian. PCL and CalPAW, realizing that sometimes "what the hell" *is* the best strategy, then decided to qualify a much more ambitious bond measure for the ballot themselves, enlisting the help of groups like the Sierra Club, California Trout, and Audubon, to gather the requisite signatures to qualify the measure.

Knowing that past environmental initiatives have had a spotty record in California over the past 20 years (a couple of wins – 1972 Coastal Protection Act, notably – against a string of losses including river protection, nuclear safety, and others), CalPAW included as many local interests as possible in Prop 70 to garner widespread support: Hence the large number of specific projects addressed and thus the sizable bones tossed to specifically benefit "game" animals – upland birds, deer – and trout and salmon habitat, in order to bring hunting and fishing groups into the coalition. Additionally, by casting the issue in "lifestyle" and "recreation" terms, the support of various chambers of commerce and municipal governments – ever anxious for the tourist dollar – was enlisted. (Though it should be noted that the statewide Chamber, consistent to the end, opposed the measure, as did Governor Duke, quietly.)



I mention these facts because it is tempting, given the vast support (65%) for what was a mostly non-anthropocentric ballot measure (as opposed to, say, an urban drinking water initiative), to suddenly think of including direct-vote ballot propositions in the eco-advocate's bag of tricks. Indeed, the bond act is novel, both for weaning the state from the usual "game fee" approach to habitat fundraising (and hence the managing of said habitat for larger "game" yields), and for inspiring other states to consider similar creative approaches to buying disappearing habitat. (For states with lower bond ratings than California's, other revenue methods, such as vanity plates, oil severance taxes, or pari-mutuel betting taxes, might be advanced.) However...

It took a widespread established apparatus to gather signatures for an initiative that, while definitely worthwhile, was crafted to maximize support and minimize controversy. (The initiative does not empower the F&G's Wildlife Conservation Board to "condemn" land for habitat acquisition – it must come from a "willing seller" at "fair market value.") Any proposed initiative with even deeper ecological values – reintroduction of the Grizzly Bear or the Jaguar, banning of grazing on public land in the state – would be less likely to get a fair hearing from the voters, due to the money that would be thrown against it by gun groups, land barons, etc. Qualifying such notions for the ballot would also necessitate commerce with lawyers, to draft court-proof language, and a ready pool of volunteers to gather signatures. Nonetheless, the fact remains that the best hope for visionary wilderness acts to pass appears to be direct ballot, free from the rancid deal-making of legislators. In California, much-needed reform of the state's Fish and Game Commission would be a good place to start, but could the issues be made clear to a public unaware of the depth of environmental maladies? I'm not talking about "compromise" here, but rather, how to articulate serious ecological concerns to that segment of the public that still bothers to vote – which one must do *if* one considers the proposal of such ballot measures as another Earth First! tactic. Would this imbed us too deeply in the very paradigm we're fighting? Should we leave this to the mainline groups? Will plain EF! talk ever have a place in ballot propositions? Further discussion is needed, perhaps even in these pages. (Meanwhile, anyone with thoughts on this issue – any renegade barristers or pollsters out there? – is encouraged to contact the author in care of Los Angeles Earth First!)

The aspect of Prop 70 of most interest to Earth First!ers is habitat acquisition and protection (there is no provision for reintroduction of extirpated animals to previous ranges). The $85 million for coastal protection, $153 million for state parks, $336 million for regional and local parks will all provide de facto protection for a lot of land – though, of course, questions about management will arise. Of the aforementioned $50 million not already designated for specific projects, there is a complicated procedure for advocacy of crucial land parcels to the Fish & Game Department's Wildlife Conservation Board, a panel ironically named indeed considering that it belongs to the same bureaucracy routinely promoting the murder of countless Black Bears, Tule Elk, Bighorn Sheep, and Pumas. Nonetheless, it does open another avenue for the protection of critical habitat. Concerned citizens will contact their local Fishy Games Regional Manager, or write headquarters in Sacramento, listing the "wildlife values" of the land they propose to save, what the current threats are, and including, if possible, a map. Terrain vital to species already listed as Threatened or Endangered will allegedly receive higher priority. The letter will go to the F&G Lands Committee, comprised of representatives from each state region, and representing each "function" in the Department. They, in turn, sift through the proposals, deciding, in the words of WCB head John Schmidt, which are the "highest priority in the state – not necessarily in local area(s)." If it is chosen, if the seller is willing, the appraisal and negotiation for the deal (which may not include all the acreage sought – only that which is deemed "vital") is returned to the WCB for final approval. Schmidt claims the whole process only takes about four months. EF!ers should familiarize themselves with these procedures, since extra tools in the bag never hurt. Order a copy of the Prop 70 "implementation memo," available from CalPAW (addresses are at end of article).

Besides the unallocated land acquisition money, there are other competitive funding programs set up by 70, which include a trail grants program for non-profit groups (good where trails are appropriate, and when used for purchasing land that might otherwise be developed), as well as an urban streams program to "acquire or restore natural lands which contain urban streams, creeks and riparian areas." (Obtain info on the former from the Dept of Parks & Rec, on the latter from the Dept of Water Resources.)

While Prop 70's passage is certainly an encouraging sign, some are already uneasy about the "fox guarding the hen house" aspects of its administration. Among these is Sue Nelson, President of Friends of the Santa Monica Mountains, a group fighting to save that imperiled Los Angeles-area range from greedhead developers.

Although 70 sets aside $30 million specifically for the Santa Monicas, Nelson fears that the legislature is already borrowing against the Proposition's funds – which won't be available until next June – thus incurring penalties that reduce the value of remaining monies. And in buying land in the Santa Monicas – an area already balkanized by the checkerboard development that prevents the proposal of contiguous wilderness areas – and paying "fair market value," the result is that private lands adjoining the purchased areas suddenly become worth more – because a median price has been set, and because purchased areas can't be developed, and hence, adjacent private lands are instantly in "more desirable" areas. She also fears that less immediately threatened lands in outlying areas may be the first purchased with scarce funds, rather than more controversial parcels closer to the ravages of urban hegemony.

The upshot is that the whole habitat acquisition aspect of Prop 70 will require careful monitoring and vociferous advocacy by all concerned. And if any readers wonder whether this might be an opportunity to buy threatened land already in federal hands, don't bank on it. According to Schmidt, the state would prefer to avoid using funds to acquire land already in federal domain, though he allowed that an exchange might be arranged if the situation warranted. (Well, hey, if we take the Los Padres will you give them Orange County?)

Whether the politicos got any "electoral message" out of 70's overwhelming passage remains to be seen. Richard Spotts, indefatigable Sacramento-based lobbyist for Defenders of Wildlife, mentioned that within a week of the initiative's passage, he was at the state legislature supporting a "modest wetlands study bill." The same tired State Chamber of Commerce and Farm Bureau arguments were marshaled against the proposal; the "Republicans acted as if nothing happened" at the ballot box days before. "Trench warfare," he noted wistfully, "continues."

Hey, let's *do* bring back those Jaguars: That'll really make the battle exciting.

WHAT YOU SHOULD DO:

Get a copy of the "Implementation Memo" and learn how to inject yourself – and your deep ecological values – into the Proposition 70 process: CalPAW, 909 12th St, Ste. 203, Sacramento, CA 95814; 916-448-1786.

Other people should hear from you:
***John Schmidt, executive officer, California Wildlife Conservation Board 916-445-8448 and/or Jim Sarro, Dept of Fish & Game 916-324-7913**
***Dept of Parks & Recreation, POB 942896, Sacramento 94296; 916-445-4441 (for trails grants and other local programs)**
***Ann Riley, Dept of Water Resources, POB 942836, Sacramento 94236; 916-323-9544 (for urban streams programs).**
***And of course: your friendly local Fish & Game Regional Director!**

Mark Williams is a playwright and a leader of Los Angeles EF!

PLUM CREEK INC THREATENS ROADLESS CANYON

South Cottonwood Canyon lies south of Bozeman, Montana, in the Gallatin Range on the northern fringe of the Greater Yellowstone Ecosystem. Although some logging has occurred in the western reaches of the drainage, South Cottonwood is mostly wild and roadless. It is critical summer range for Elk and is sometimes used by Grizzly Bears. But like much of the Gallatin Range, ownership of South Cottonwood is in a "checkerboard" pattern, with some sections in public ownership in the Gallatin National Forest and others owned by railroad giant Burlington Northern (BN). BN also owns lands in the roadless Porcupine and Buffalo Horn drainages of the Gallatin Range.

A land exchange has been proposed which would put all lands in these two drainages into public ownership, with BN receiving other sections in less critical areas.

Plum Creek Inc. (PC) is the timber arm of BN and is infamous in the Northwest for rape and run logging of lands "acquired" through 19th century railroad grants. PC has stated its intention to log *all* of its 139,000 acres within the Gallatin Forest in the next 10 years and then to get out of logging in the area.

BN plans to log Section 19, in the upper part of South Cottonwood, in the Fox Creek area, *soon*. An existing Forest Service road in Hyalite Canyon would be extended into South Cottonwood to access Sec 19. PC would log some of the steepest slopes in the drainage, and the upper reaches of South Cottonwood would be opened to further roading and logging. PC has rejected offers of up to $1 million from conservation groups for the purchase of Sec 19, planning instead to log it to show environmentalists that they can "do what they want with their land." Local opposition is mounting, with hunters and even loggers opposed to PC plans and Wild Rockies Earth First! prepared to stop them.

WHAT YOU CAN DO:

1) Write PC and tell them they will face increasing opposition unless they vastly improve their private lands logging practices. Urge them to accept the Porcupine-Buffalo Horn land exchange with all South Cottonwood sections included. 2) Write Montana's US senators, John Melcher and Max Baucus, and Representative Pat Williams, along with your senators and representative. Urge them to include South Cottonwood lands in the land exchange and to support Wilderness designation for all roadless lands in the Gallatin Range. 3) Help plan a regional day of outrage against BN- PC! Addresses are: Plum Creek Timber Inc., 1st Interstate Center, Suite 2300, 999 3rd Ave, Seattle, WA 98104; senators, US Senate, Washington, DC 20510; representatives, House of Representatives, DC 20515.

—Phil Knight

ENVIRONMENTALISTS ALLOW WMNF WILDLIFE *MISMANAGEMENT* TO CONTINUE

As of mid-August, New England environmentalists have let the managers of New Hampshire's White Mountain National Forest off the hook on their wildlife mismanagement despite a concession a year ago by the Forest Service to allow environmentalists to monitor WMNF wildlife management policies. While the FS has continued to evade its responsibilities to the vanishing native species, it appears that only Earth First! has an interest in the creation of the much-needed Wildlife Management Advisory Board (WMAB).

In October 1987, New England environmentalists agreed to drop their appeal of the White Mountain National Forest plan after winning two modest concessions from the Forest Service: six roadless areas totalling 100,000 acres will remain unroaded through the duration of the plan, which ends in 1996; a Wildlife Management Advisory Board will be created to evaluate and oversee the wildlife management portion of the WMNF plan. Unfortunately, environmentalists failed to secure any firm commitment from the FS regarding implementation of the WMAB.

The WMAB was desperately needed because the WMNF plan was designed to enhance populations of popular game and weed species which thrive under FS mismanagement (deer, rabbits, grouse and loggers). The plan fails to address the plight of the nearly extirpated Canada Lynx. Other shy, sensitive, Threatened, Endangered and extirpated non-game species are also ignored.

Another shortcoming of the wildlife management plan is its failure to manage for endangered ecosystems. Viable native plant-animal communities can only be realized, in the long-run, by greatly expanding the boundaries of the National Forest, abolishing roading and logging, closing most existing roads, and designating the entire expanded WMNF as Wilderness. (Even the FS admits that recreation, not logging, is by far the greatest resource of the WMNF.)

In the short-run, it is imperative that the Advisory Board be given real power to reorient the skewed management values of the Forest Service toward the imperiled and extirpated natives: Canada Lynx, Pine Marten, Peregrine Falcon and others. The underlying philosophy must be: species protection can only be achieved through the protection of sensitive and threatened ecosystems.

WMNF bureaucrats, like FS bureaucrats everywhere, misuse statistics to justify their logging quotas (35 million board feet this year in the WMNF). It claims there are more species in the Forest because of its roading, clearcutting and strip cutting. True, there are more weed species, but fewer of the rare natives.

The FS does not know if the Lynx survives in New Hampshire, yet it planned to destroy some of the vanishing Lynx habitat. The Forest Service told me that recovery of the Lynx will probably entail the closure of some hiking trails at higher elevations. Yuppie backpackers may not like this, but Earth First! says let's get on with the road and trail closures.

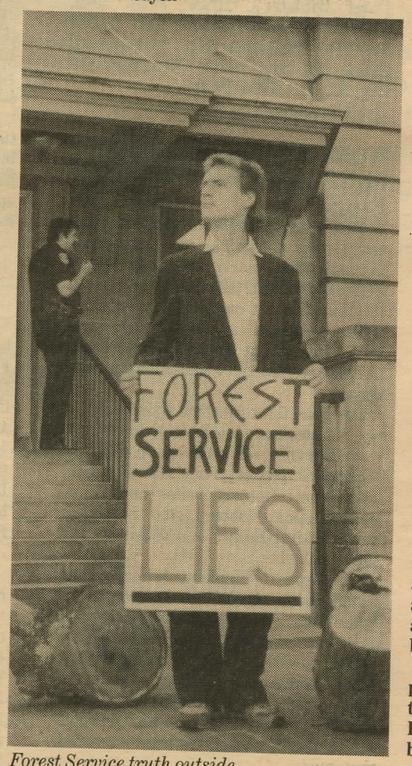
Even though it agreed to the creation of the WMAB, the FS remains unrepentant in its belief that its wildlife management is adequate. The burden to create an independent, biocentrically-oriented advisory board falls on the shoulders of the environmentalists who appealed the Forest plan: The Wilderness Society, the Conservation Law Foundation, Sierra Club, and Defenders of Wildlife.

For the past year, I have pestered both the environmentalists and the FS about the still non-existent board. In April, I formally requested that conservation biologist and high school teacher Jeff Elliott, a New Hampshire native with intimate knowledge of the White Mountains, be appointed to the Board. Forest supervisor Mike Hathaway sent me a perfunctory "thank you." Since EF! is still the only group which shows concern about the Board, and since WMNF PR man Ned Therrien told me that it would be composed of representatives from groups with an interest in this issue, the well-qualified Jeff Elliott should certainly be appointed now.

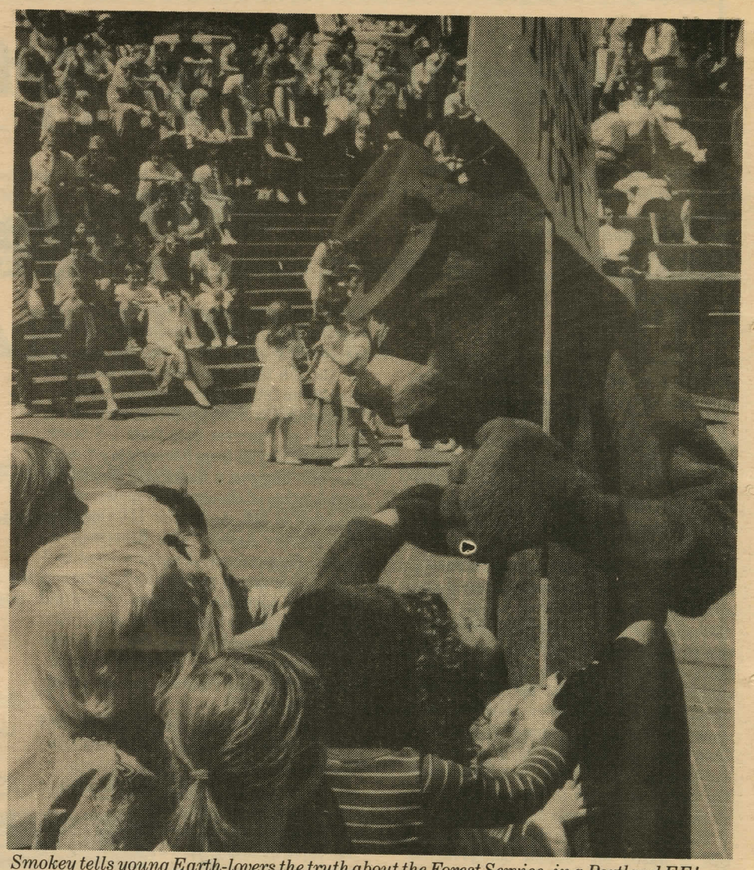
WHAT YOU CAN DO:

Write WMNF Supervisor Mike Hathaway, POB 638, Laconia, NH 03247, and tell him to see that a biocentrically-oriented Wildlife Management Advisory Board be appointed immediately. Tell him to appoint Jeff Elliott, and recommend to him the names of other biocentrically-oriented biologists from New England. Also, write Doug Foy, Conservation Law Foundation, 3 Joy St, Boston, MA 02108-1497; and Mike Kellett, The Wilderness Society, 20 Park Plaza, Suite 536, Boston 02116, and tell them it is their responsibility to require the Forest Service to fulfill its obligations. Tell them to appoint Jeff Elliott and other biocentrically-oriented biologists to the Board. Anyone interested in monitoring the WMAB inactions should write to NH EF!, Box 530, N Stratford, NH 03590. Please send money.

–Jamie Sayen



Forest Service truth outside Region 6 headquarters.



Smokey tells young Earth-lovers the truth about the Forest Service, in a Portland EF! march from timber pimp Hatfield's office to the FS Region 6 headquarters. The week before, three stumps were cemented in front of the headquarters' doors.

ANARCHISTS AND AUTONOMISTS PROTECT EARTH IN BERLIN

From May 25 to July 1, approximately 100 anarchists and autonomists inhabited a small triangle of land in Berlin. A paradise of wild native plants having been left to grow since World War II, the squatters reclaimed the land in protest of the West Berlin government's plan to bulldoze it for a six lane autobahn, and used it for a short stay of anarchy and autonomy.

Named after Norbert Kubat, an autonomist who committed suicide while in confinement last year, Kubat Triangle was a no man's land until July 1. The triangle was a key parcel among 16 pieces of land that were negotiated for exchange because of having been stranded on the wrong side of the line dividing Berlin. On July 1, the land, heretofore belonging to East Berlin though located on the west side of the Wall, changed hands to West Berlin.

For the life of the encampment, the squatters were out of the direct reach of West Berlin police. The police terrorized the squatters in many ways but were forbidden to step on the territory until July 1. East Berlin police had little interest in getting involved. They peeked over the Wall from binoculars to watch the West Berlin police to make sure they did not invade their territory.

On the morning of July 1 when the land officially became West Berlin's, 900 West Berlin police marched into the Kubat Triangle to evict the squatters. In response, the anarchists and autonomists, then numbering about 170, climbed the Wall into the hands of East Berlin authorities. There they were treated graciously, their names recorded, and were placed onto the subway for West Berlin. The West Berlin police then recorded their names and released them.

–Elizabeth Kemp

IN DEFENSE OF DUCKS IN VICTORIA, AUSTRALIA

Laurie Levy has conducted a successful campaign to stop duck shooting season in Victoria. He led a duck rescue at Top Marsh where rescuers confronted hunters' guns, rescued injured birds, and counted the dead and in particular the endangered species. Earth First!ers were among the rescuers. Levy needs assistance to make the politicians of Victoria aware that ending the duck killing would be politically popular.

To this end, EF!ers everywhere, please write: The Minister for Conservation, Forests, and Lands, Ms. Joan Kirner, 240 Victoria Pde., East Melbourne, 3002. Victoria, AUSTRALIA.

—Marianne Heynemann, EF! local contact, POB 256, Mitcham, 3132. AUSTRALIA

GERMAN GREENS DEFEND BC WOLVES

The Green Party of West Germany has told the Canadian ambassador to Germany that "no government has the right to destroy a species for the fun of a few destructive tourists.... If the BC Government continues to destroy the unique wilderness of Western Canada for the sake of a few tourists, including those of West Germany, we might have to discredit such destructive tourists over here and have information campaigns in front of tourist offices etc. I do not believe that, in the long run, it is in the interest of even the BC tourist industry to let the government destroy the wilderness."

West German tourists comprise a large part of the tourists in British Columbia. The information campaign would be effective.

–Trudy Frisk, British Columbia

TOFINO BC: THE 1st EARTH 1st! COMMUNITY?

Maybe it's the result of being port of call for Greenpeace and Sea Shepherd voyages. Or the effect of the long fight of local residents, Haida and non-Haida, to save Meares Island. Whatever the reason, Tofino, a coastal community on western Vancouver Island, British Columbia, is a town of 900 Earth First!ers!

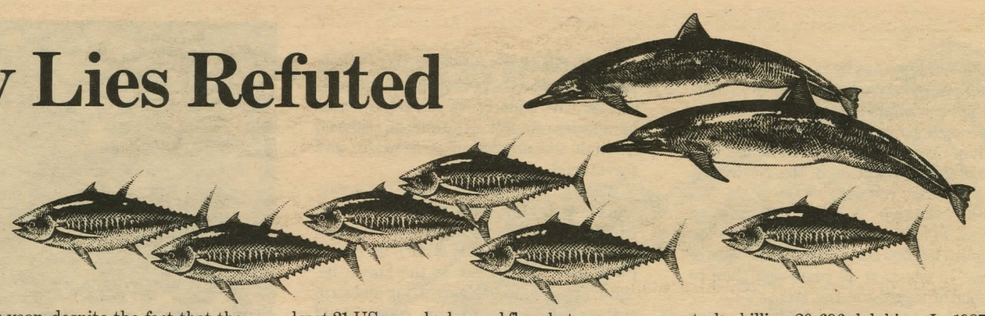
Not only is the town united in opposing logging; the vice president of the Tofino Chamber of Commerce led the most recent blockade of bulldozers in the old growth. Where else do posh restaurants feature handouts decrying logging and urging wilderness preservation, lodge owners speak favourably of black flies ("part of Nature, you know"), and Chamber of Commerce staff extoll the ecological wonder, not the tourist potential, of the bi-annual Gray Whale migration?

A non-resident guide hunter recently learned of the determination of Tofino residents. The hunter foolishly brought his clients to hunt bear on Meares Island, and was pursued by a flotilla of local craft until he desisted.

One unfortunate result of the baiting of beaches to draw the bears was that a Cougar, attracted by the meat, attacked and killed a local child. The Cougar was immediately tracked and killed, right? Wrong, this is Tofino. The community felt it shared the wilderness with other species and had no right to kill them for acting naturally. The woman who explained this to us, herself a mother, said she believed that predators always take the weak and sickly. "I liked that boy," she said, "and I'll miss him. But, you know, he never seemed really healthy to me."

–Trudy Frisk

Tuna Industry Lies Refuted



If you have sent postcards or letters to the tuna companies, you have probably received some slick propaganda in return. The industry continues to paint a picture of calm seas for dolphins despite serious concerns expressed by scientists and environmentalists. Below, the Earth Island Institute responds.

The industry would have you believe that the level of kill is not deleteriously affecting dolphin populations.

Not true. The annual killing of hundreds of thousands of dolphins is causing severe adverse effects on at least three stocks of dolphins – the Eastern Spinner, the Northern Offshore Spotted, and the Central Common Dolphin. All have been significantly depleted from initial population levels. Not surprisingly, tuna industry models use gross underestimates of the actual number of dolphins killed. They have also spent more than one million dollars in legal fees to overturn US government estimates. As Dr. William Perrin, senior dolphin biologist for the US National Marine Fisheries Service has stated, "The Eastern Spinner Dolphin has been formally classified as 'depleted' by the US for several years; the population has been estimated to have declined by 80 percent since purse seining began."

The industry states that their level of kill is based on "sound conservation principles."

Again, this is a serious distortion. The quota was issued in 1981 as an interim level to allow the industry time to find alternatives. In the meantime, the industry insists that the killing be allowed to continue indefinitely and work on alternatives has ground to a halt.

Ralston and Heinz state that all US fishermen do their utmost to reduce dolphin kills to the lowest possible levels.

In fact, US fishermen have dramatically increased the number of sets on dolphins from less than 50% in 1981 to 94% in 1986. The number of dolphins killed by US fishermen alone has averaged more than 17,000 per year, despite the fact that the number of US boats has dropped from 100 (in 1981) to 34 (1988). The kill per boat for the US fleet has increased from less than 200 in 1981 to more than 600 in 1986.

There are serious problems with the reliability of observer data from US boats. Sworn affidavits from former government monitors suggest a disturbing pattern of intimidation of observers to under-report the level of kill. As former US Observer Ken Martin states: "The fishermen resented the presence of a government biologist and engaged in every form of harassment and coercion to ensure that I did not report the actual number of dolphins killed ... I know from conversations with other observers and observer trainers, that threats and coercion are all pretty much the norm."

Another US observer from 1982-1987 states: "I witnessed a captain ordering the speedboats to run right through the middle of the herd to chop up the leaders that were trying to get away..."

These eyewitness accounts suggest that the tuna industry's portrayal of the US operations is hardly accurate.

Ralston Purina's letter states: "It has been alleged by one organization that many US vessels have changed flags to avoid US marine mammal regulations."

Earth Island is far from the first organization to suggest that avoiding US marine mammal regulations is one of the factors that has resulted in the decline of US boats from 100 to 34 during the past several years. Even the president of the American Tunaboat Association has stated that stronger laws to protect dolphins would only drive US operators overseas.

Published figures document that at least 21 US vessels changed flags between 1981 and 1987. No one disputes that other factors such as avoiding US labor laws, cheaper labor costs, lower insurance and fuel costs have caused some of the flag jumping.

Recently the former president of the Mexican Tunaboat Association stated that a majority of the captains and navigators working on Mexican boats are Americans formerly employed within the US fleet. Since official figures estimate that the Mexican fleet is killing at a rate four times worse than the US, one has to question the commitment of these operators to comply with US laws. No sanctions have been imposed against any foreign country because of their excessive killing of dolphins.

The industry protests that the scenes portrayed on the videotape by Sam LaBudde could never happen on a US boat.

Former and current US observers tell us quite the opposite. The US industry claims that in 60% of their sets no dolphins are killed. To account for the thousands of dolphins killed by the US, therefore, disaster sets most certainly occur. Observers have stated on the record that Sam's video is representative of what happens on both US and foreign boats. The harassment, the use of explosives, the separation of nursing juveniles from mothers, the trapping inside or under the nets, the injuries, drowning, and crushing in power blocks takes place regardless of who catches them.

The US industry claims that is is using its best efforts to limit the killing of marine mammals, and claims the 1987 record is proof.

In 1986 the tuna fleet exceeded the quota by killing 20,696 dolphins. In 1987 the total kill was 14,004. If the current rate of kill continues, the industry may again exceed the quota in 1988. The industry could limit the sets on dolphins, but they don't. They could stop the use of sundown sets, which result in thousands of additional deaths. They could preclude sets on protected species, prohibit sets on the same herds in a single day. They could spend less time and money fighting to weaken regulations.

The industry claims that it has provided "factual material" and that the Porpoise Rescue Foundation is a "scientifically acclaimed" organization.

In fact, the Porpoise Rescue Foundation is entirely sponsored by the tuna industry. As for their "factual material," they claim that groups calling for a cessation of fishing for tuna by encircling dolphins are irresponsible and that a cessation is unrealistic, as least for the foreseeable future. In fact, the phase-out is now supported by 29 national and international organizations, including the Humane Society of the US, the National Audubon Society, the Sierra Club, and Greenpeace.

The points to refute in the industry letter are numerous. We would be glad to provide a more complete rebuttal, or respond to any concerns you have about their material.

For more details about the dolphin-tuna connection and what you can do about it, send for a copy of the 8-page Dolphin Organizers Kit (50 cents/copy) from: Earth Island Institute Dolphin Project, 300 Broadway, Suite 28, San Francisco, CA 94133-3312.

PENAN TRIAL SET, SUPPORT ACTIONS PLANNED

In Sarawak, the Malaysian portion of the island of Borneo, live the Penan, a nomadic tribe of perhaps 5000 who have lived for centuries as hunter-gatherers in the world's oldest rainforest. The Penan's ecologically sound way of life is in jeopardy. The Western world's appetite for tropical timbers has become voracious, and Malaysia now supplies about 60% of the world's tropical hardwoods. As a result, the Penan's rainforest is being cut at the astounding rate of 7 square kilometers per day as illegal logging roads pierce the heart of deepest, darkest Borneo. The Malaysian government is encouraging the logging companies and suppressing opposition. In fact, Sarawak's Minister of the Environment is one of Malaysia's most infamous timber barons. Malaysian activists say that many Malaysian politicians hold shares in the logging companies.

Nearly a decade of increasing poverty, starvation and cultural decline due to logging led the Penan to appeal repeatedly to the government for an end to the logging, with no results. In 1987 the Penan began blockading logging roads. They stopped the logging for 8 months, until the government crackdown in October of 1987. One hundred and six Malaysian activists, including Harrison Ngau of Sahabat Alam Malaysia (Friends of the Earth Malaysia), were arrested and held without bail, trial or legal counsel. In addition 42 Penan and other tribals were arrested for the blockade.

Thanks to pressure put on Malaysia through international publicity and thousands of letters, the protesters have been freed, though Ngau remains under "house arrest." Meanwhile, the logging and the blockades continue. Trial date for the activists has been set for October 31. At the 1988 Earth First! Round River Rendezvous, an expert in international law agreed to represent the Penan at their trial in Borneo.

On October 31 there will be demonstrations in support of the Penan in at least 20 countries. US targets include the Malaysian consulates in San Francisco, New York and Washington, DC, and all merchants of tropical timbers. Preliminary actions will occur during World Rainforest Week, October 9-16. This is the time to spread the word in your community about the destruction of rainforests and repression of tribal peoples.

Indonesian and Malaysian timber exporters are already feeling the pressure from an international boycott of tropical timbers initiated by London-based Friends of the Earth United Kingdom. The timber merchants have begun a propaganda campaign which accuses the Western softwood industry of launching the boycott to reduce competition.

Start planning for World Rainforest Week and October 31. Write the Rainforest Action Network or the Rainforest Information Centre for information (addresses in Directory). Also write the following people (be respectful) and ask that all logging in the Ulu Limbang/Ula Tutoh area be stopped, that the activists be released unconditionally, and that the Penan be guaranteed their rights to practice their traditional way of life: YAB Datuk Patinggi Haji Abdul Taib Mahmud, Chief Minister of Sarawak, and Minister of Resource Planning, Chief Minister's Office, Petra Jaya, Kuching SARAWAK; and YAB Datuk Seri Dr Mahathir bin Mohammed, Prime Minister, Prime Minister's Office, KUALA LUMPUR.

–Phil Knight

WORLD'S RAINFORESTS SEEK HELP FROM EARTH FIRST!

After reading Phil's blood boiling article next to this, you will be more than ready to join this year's WORLD RAINFOREST WEEK activities, October 9 - 16. You need not organize a huge direct action. Activities can be anything from a civilly disobedient mass protest to a rainforest dance/dinner or educational presentation.

The good folks from the Rainforest Action Network are ready to help. Call or write and they will send you an excellent organizers' packet. They can also help with details. Contact Anita Smith, Rainforest Action Network, 300 Broadway, Suite 28, San Francisco, CA 94133, (415) 398-4404.

Afterward, let us know what you did on this week. Send details to Anita.

You'll be in fine company. Last year, our first national series of rainforest demos – with actions focusing on the World Bank and US-based multinational banks which subsidize rainforest destruction – involved over 50 events. Let's give the rainforest destroyers even more hell this year!

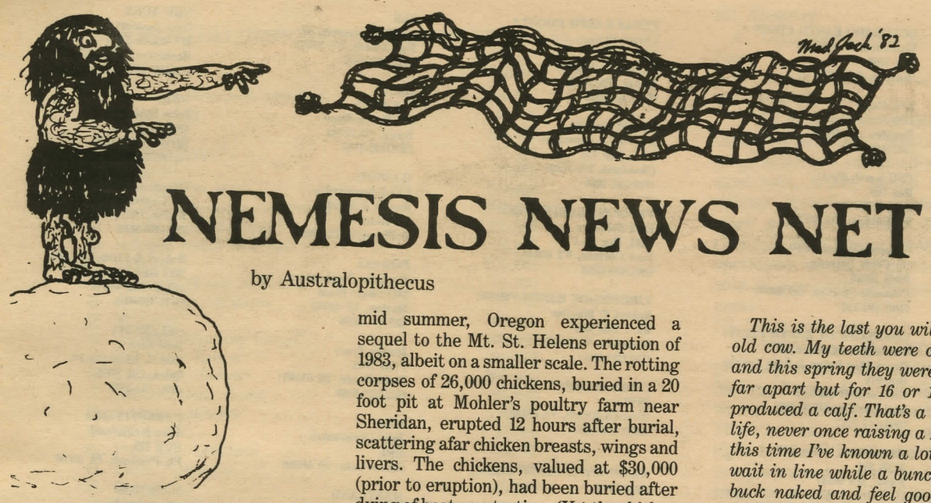
–Roger Featherstone

Koalas May Face Extinction

It would seem that if conservationists can't even save Australia's Koala Bear – the epitome of a charismatic species – ours are doomed efforts. Yet indeed, the World Koala Research Corp. recently warned that urban expansion and a terminal sexually transmitted disease that causes blindness and infertility could cause the extinction of the Koala within 10 years. Half of Australia's 200-400,000 Koalas are suffering from this mysterious disease; 80% of their natural habitat has been destroyed, and more is being logged, urbanized, or converted to farmland. Scientists know very little about this species, but it is clear that as loggers continue to clearcut the gum trees (eucalypts) – 20 species of which are the Koalas' source of food – the Koala will decline in numbers. Along with the Koala, many other species dependent upon the eucalyptus forests of southern New South Wales are also threatened, including the Southern Brown Bandicoot, Spotted-tail Quoll (a marsupial carnivore), Little Red Flyingfox; Peregrine Falcon, Powerful Owl, and Sooty Owl. Because the virus-like bacterium that causes the disease afflicting the Koalas, chlamydia, also infects the reproductive tract of humans, the American pharmaceuticals company Upjohn is sponsoring research conducted by the Australian Koala Foundation. (*New Scientist*, 5-26)

Monkeys Seek to Avenge Baby's Death

Last spring, a boy stoned a baby monkey to death in the Penang Botanical Gardens, 180 miles northwest of Kuala Lumpur, Malaysia. The boy was wearing a yellow shirt. He departed in haste after the kill. Shortly thereafter, 60 of Penang Gardens' 350 monkeys charged tourists wearing yellow. It necessarily follows that monkeys are not color-blind.



NEMESIS NEWS NET

by Australopithecus

Toxics Spill Kills Co. President's Son

Nature is vindicated in mysterious ways. This summer, toxic solvent, gushing from a ruptured pipe at an industrial chemical lab near Salt Lake City, killed the chief vice president and injured 10 lab workers. (UPI)

Human-Induced Disasters Deplete Northern European Seas

Almost every winter and spring for the last 11 years, Greenland Seals, believed to come from the Barents and White Seas, have invaded Norway's northern coasts in search of food. Their native prey, capelin and herring, have been depleted by human overfishing. This year the fish populations were nearly exhausted and more seals than ever before, estimated at a million, were forced to hunt for food along Norway's coast.

This latest manifestation of the demise of the Barents Sea food web followed a disaster off southern Scandinavia where a poisonous trail of green algae choked much of the rich sea life. (*Seattle Times*, 6-20) Scientists now believe pollution was the cause of the algae bloom and of the spread of a herpes virus that has killed hundreds of Harp Seals in Danish waters and on West Germany's North Sea coastline. An estimated 20% of dab fish in the area are suffering from canker sores as a result of the algae and thousands of fish have died. (*The Globe and Mall*, 6-4) One theory gaining credibility is that pollutants have caused cobalt to leach into coastal waters, and cobalt triggers population growth for this particular type of algae.

Orca Busts Commando Mission

A 12 foot baby Orca ("Killer Whale") in the North Sea has apparently lost its parents and is making its home in the vicinity of an oil rig, 150 miles from Scotland, which attracts schools of fish. The 18 month old Orca likes to chase the rig's supply boat, somersaulting in its wake, and the oil men have affectionately dubbed the cetacean "Okkie." However, the British marine commandos of the Special Boat Squadron did not know of the Orca's benign demeanor and when Okkie surfaced alongside their boat, they fled in fear, abandoning their secret anti-terrorist training mission. (Reuters, 6-29) Rumors that the Reagan administration hopes to recruit Okkie to replace present US anti-terrorist squads in the Persian Gulf remain unsubstantiated.

Officials Blame PETA for Beaver Liberation

Officials are blaming People for the Ethical Treatment of Animals – one of the most powerful US animal rights groups – for the disappearance of 200 Beavers, valued at $100,000, from a western Montana fur farm. Prior to their disappearance, PETA had gained control of the Beavers, which were facing starvation. The fur farm owner, Dennis Crum of Fresno California, had declared bankruptcy after allowing over 200 Beavers to starve. County attorney John Robinson, saying the Beavers could have satisfied debts pending against the defunct business, has threatened to file charges of felony theft against PETA. Crum's two companies involved with the fur farm, on the other hand, were only charged with a misdemeanor for the cruel negligence, and fined only $500. Officials have not recovered the Beavers. (*Great Falls Tribune*, 6-16)

Chickens Erupt!

In case any of you missed the story, fit for the National Prevaricator, but entirely true and reported by UPI, here it is: In mid summer, Oregon experienced a sequel to the Mt. St. Helens eruption of 1983, albeit on a smaller scale. The rotting corpses of 26,000 chickens, buried in a 20 foot pit at Mohler's poultry farm near Sheridan, erupted 12 hours after burial, scattering afar chicken breasts, wings and livers. The chickens, valued at $30,000 (prior to eruption), had been buried after dying of heat prostration. (Yet the chicken was still under-cooked and thus even the most hardened meat-eaters of Sheridan would not sample the victuals.) The explosion was caused by gases from the decaying carcasses of the chickens. Grower Larry Mohler exclaimed: "The dirt we piled on top started bubbling and moving. And then the whole thing just blew up!" The scientific community has remained disconcertingly taciturn about this eruption, few daring conjecture about what effects it might have on Earth's climate, or even about the degree to which it will cause inordinately spectacular sunsets in the northern hemisphere.

Lake Mendocino Fish Attack Swimmers

Unidentified fish repeatedly attacked swimmers in northern California's Lake Mendocino in July. In several instances, fish snapped so hard that they drew blood. (Said truck driver Earl Johnson, "That damn fish bit the hell out of me.") Biologists, unable to explain these bizarre occurrences, planned to electro-shock fish in the areas where attacks have been common, so as to catch and study the fish. (Electro-shocked fish are generally released subsequently.) Some locals speculated that the biting fish may be exotic predators such as South American piranhas, but a local fisheries biologist suggested that the fish may be members of the sun fish family protecting their spawning ground. Sun fish include Large and Small Mouth Bass, which are common in Lake Mendocino. After further investigation, the biologist said that the attackers may be catfish. He noted that catfish are feisty when sexually aroused, hungry, or bothered; and that this summer, fish are spawning late and finding few food fish. (*Santa Rosa Press Democrat*, 7-15; AP, 7-24; test results have not reached us here in Tucson.)

RRR Stirs Animosity

Those of us who attended the 88 Round River Rendezvous may have incurred more wrath than we anticipated. It seems that we may have precipitated a logging accident as well as a flurry of unfriendly articles and letters. To wit: on the first day of the RRR, a local logger, Clint Brown, owner of Brown Logging, broke his leg when a tree fell on him. Perhaps our group energy can be credited with this mischief, as this man is one of the main old growth killers in northeastern Washington. Shortly thereafter, some of the local ranchers, who looked askance at the RRR, wrote to the local *Republic News-Miner*. One particularly learned rancher wrote an insightful and heart-rending piece from the perspective of one of his beloved bovines. The following is a portion thereof:

Dear Editor,

I am easily the oldest cow on the South Fork of St. Peter's Creek. [!!!] *In the last few years when I lead my sisters to the range and we cross the last cattle-guard the Forest Service becomes our Lord and master.*

We are now staying on Unit One. Some of us have took up eating knap weed. A few of us escaped to Unit Two the other day but the Forest Service said that would be too close to an environmental group called Earth First having a gathering on Unit Three. We had to go back.

My kind have been grazing this country longer than the white tail deer. In the summer we share the same pastures. In the fall the deer move to the alfalfa fields and eat the leaves and leave us the stems and in the winter we again must share hay. Now some misguided individuals with a one-sided point of view want us off Forest Service land, in other words, instead of stems we get the shaft....

This is the last you will hear from the old cow. My teeth were checked last fall and this spring they were getting a little far apart but for 16 or 17 years I have produced a calf. That's a long productive life, never once raising a Holstein. In all this time I've known a lot of bulls but to wait in line while a bunch of critters get buck naked and feel good is more bull than I can take.

–THE OLD COW (Translated by Richard Strandberg, Curlew)

This appeal seems to be affecting some among our ranks. Rumor has it that Lynn Jacobs' determination to kill the public lands livestock industry is wavering. In fact, he was reportedly spotted recently on a pilgrimage of penance, wearing sack cloth and ashes and carrying a huge hay bail to feed hungry cows in Coronado National Forest.

Alligator Aggression Provokes Retaliation

Since the recent fatal attack on a four-year-old girl in Englewood, Florida, by an Alligator (who dragged her from a canal bank), there has been an upsurge in the killing of Florida Alligators. Alligators, which are optimistically estimated to number a million in Florida, were recently down-listed by the US Fish and Wildlife Service from Endangered throughout their range in the Southeastern US to Endangered in parts of their range but only Threatened in Florida and parts of Georgia and South Carolina. Thus they now are afforded even less protection than before. In fact, last year, even before the girl's death, Florida's 46 licensed Alligator killers slew 3853 ostensibly menacing Alligators. Those killed usually had been bothering pool swimmers, scaring golfers, or eating dogs, in Alligator habitat lately degraded by human invaders. The recent death was only the seventh caused by Alligators in the last 40 years. Nonetheless, it aroused vengeful feelings on the part of many Florida exotics. Wildlife officials have received a flurry of requests for Alligator removal from waterways near human residential areas. Randy Pearson, one of the licensed Alligator killers, recently described his ignoble profession for the *New York Times*. (6-20) When called to remove a problem "gator," Pearson goes fishing; i.e., he sets bait in the area where lurks the monster, with a large hook in it. He does not, however, fish with worms, but rather with cow lungs. (We need a song about this, Keeler, perhaps "Fundamentalist Cow Lung Fishing Man.") Large gators swallow the lungs whole. Pearson notes that "bull gators" can exceed 12 feet in length and weigh nearly 1000 pounds toward the end of their 40 year lifespan. When Pearson snags one, he snares it, hogties its legs, drags it to his truck, drives home, fatally hammers its head, skins it, and sells the meat and hide. Pearson's is a lucrative profession, with Alligator hide now selling for $42.73 a foot and meat from a 10 foot gator selling for $500 or more on the open market. Pearson sometimes snags the wrong gator, but never releases a beast once caught.

After the *NYT* published its story on the gator trapper, another such killer suffered a mangled arm and a bullet wound in the leg when a 10 foot, 500 pound Alligator attacked him. The Alligator, however, did not shoot him; the man's would-be rescuers did. As the gator mauled its attempted assassin, three policemen commenced shooting it. Initially, ten bullets entered the reptile; one entered the man. The gator then released its grip, absorbed eight more bullets, and finally died. One must wonder whether Florida is inviting further maulings – and the inevitable subsequent killing of the Alligator – by issuing licenses for an Alligator hunt open to previously unlicensed hunters, as it is now doing.

Glacial Lakes Loom Formidable

As humanity has invaded increasingly remote areas in recent years, with overpopulation and land maldistribution forcing settlers into mountain reaches of the Himalayas, Andes and other ranges, so-called natural disasters have become a growing threat to rural villages. Partly because of international monetary agencies, such as multinational development banks, people and projects are moving into areas prone to floods, avalanches, and natural dam failures. Aerial and satellite photography have recently shown that in the vicinity of Mt. Everest, in Nepal, about 25 lakes are held in place by dams of rock and ice, formed by glaciers, which could burst over villages. By nature, these dams are ephemeral, and so, it would seem, must the new villages beneath them be. On the Imja Glacier, six miles south of Mt. Everest, a large lake sits threateningly above several villages, a Buddhist monastery and two popular climbers' trails. A University of Colorado geography professor, Dr Jack Ives, warned that this lake may inundate these settlements very soon and suddenly, if warm summers and heavy rains occur. Ives further warned that in the Arun River watershed, just east of the Imja glacier, precariously poised glacial lakes threaten a $2 billion hydroelectric project funded by World Bank and other international agencies. Such agencies are promoting hydropower in Nepal and other mountainous countries, where current power sources are scarce and high volume rivers are not. Nepal, such agencies contend, has hydropower potential as great as that of Canada and the US combined. In the last 40 years, at least six glacial dams have burst in the Khumbu region of the Himalayas, near Everest. The latest disaster, in 1985, resulted in a flood of water and rock in the Dudh River destroying a power plant and 14 bridges and killing five people. As trekking grows in popularity (over 12,000 a year in Everest region alone), and the greenhouse effect causes global warming (scientists report that, in 1987, for the third time this decade, Earth experienced its warmest year on human record), potential for fatalities further increases. Meanwhile, in the Alps, avalanches, often triggered by deforestation resulting partly from acid rain, have destroyed artificial dams. In and near the Andes, floods – again partly a result of deforestation – and earthquakes have destroyed several remote villages in recent years.

The above was written before the widely publicized August earthquake in the Himalayas of Nepal and India. That quake killed an estimated 800 people.

Queen Applauds Murder of the King

Queen Beatrix of the Netherlands and her consort Prince Claus (no saint despite his name) initiated the applause among an admiring crowd of gawkers and reporters, including 26 from Europe, after logger Donald Read had cut down in seven minutes the 900 year old, 65 meter tall king of a MacMillan Bloedel forest in southern British Columbia, Canada. MacBlo (the same company wanting to clearcut Meares Island, near Vancouver Island) ships 40-50,000 tons of pulp to the Netherlands each year for high grade paper. MacBlo also owns 40% of Holland's largest paper company. Further tightening the cozy BC-Holland relationship is the fact that BC Premier Vander Zalm (compared, by some environmentalists, unfavorably to Ronald Reagan), who entertained Beatrix in Victoria, hails from her country. The real royalty, incidentally, was pronounced "100% sound" after its death by chainsaw. (*Victoria Times Colonist*, 5-18)

England Cancels Fur Labeling Plan

In a recent NNN piece, we reported that the British government was planning to require fur retailers to put warning labels on fur garments explaining the source of the fur. Tragically, the British government has abandoned this plan as a result of pressure from the Canadian fur industry. Canada exports $350 million worth of fur annually, most of it to Europe, where sentiment against fur sales is growing. Canada's fur industry supports only 100,000 trappers, yet Canadian provincial government officials, including "wildlife ministers," were considering retaliatory measures against the British until Britain canceled its plans. (*The Globe and Mall*, 5-30-88)

EF! Directory

The Earth First! Directory lists the contact points for the international Earth First! movement. It is divided into four sections: 1) National EF! offices in the United States; 2) International contacts; 3) Active EF! Chapters or Groups; and 4) Contact persons where there is as yet no active EF! group. If you are interested in becoming active with the Earth First! movement, reach the folks listed for your area.

Earth First! The Radical Environmental Journal is an independent entity within the international Earth First! movement, and is not the newsletter of the Earth First! movement. It does, however, provide a forum for Earth First!ers around the world. This directory is provided as a service to independent EF! groups. **If you would like to be listed as a contact or as a group, PLEASE contact Bob Kaspar (305 N. Sixth St., Madison, WI 53704 (608)241-9426). Please send address changes or corrections to him also.** If you do not have a phone number listed, please send it to him. Bob acts as coordinator for local EF! groups for the EF! movement.

LOCAL NEWSLETTERS: Addresses marked with a "*" produce either an Earth First! newsletter or regular mailings for their area or issue. Contact them directly to receive their newsletter or otherwise be on their mailing list.

BOB WILL SOON PURGE THE DIRECTORY OF OUTDATED LISTINGS. IF YOU WANT YOUR NAME TO APPEAR HERE YOU MUST CONTACT HIM BY THE END OF OCTOBER.

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USUAL DISGUSTING PLEA FOR MONEY

The Earth First! movement runs on your financial support. We don't need as much as other groups since we are grassroots, volunteer, decentralized and have low overhead. Moreover, you get to select where your hard-earned money goes. Don't send your contributions to this newspaper, send them directly to one of these hard working groups:

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***EF! Biodiversity Project, Jasper Carlton, 2365 Willard Road, Parkersburg, WV 26101-9269 (Contributions to the EF! Foundation earmarked for the Biodiversity Project are tax-deductible.)**
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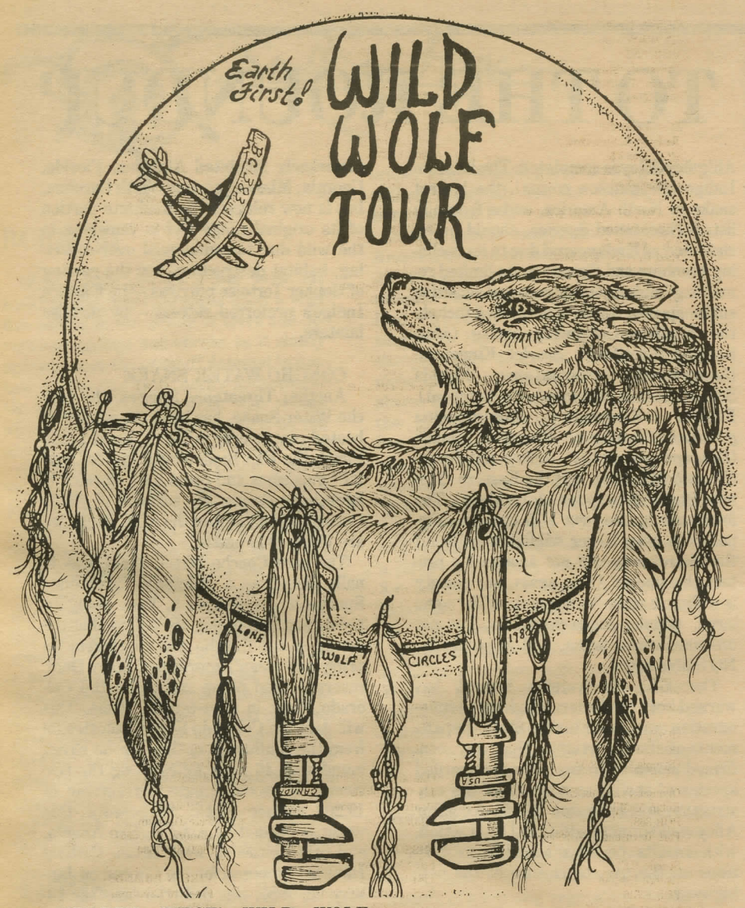
This fundraising appeal is placed as a service to the Earth First! movement. ***THANK YOU for your support!***



*EARTH FIRST! WILD WOLF TOUR. This fall, a lone howl goes up over the Northwest again, a call for a gathering of the tribes, a call to action. Lone Wolf Circles launches the EF! Wild Wolf Tour at the California Rendezvous, tours Oregon and Washington in October, then northern California through mid-December. The concert-rallies will focus on wolf issues, and will include slides and handouts. Money raised will benefit the Wolf Action Network and the EF! Wolf Action Group (WAG!) attempts to once again halt the wolf kill in northern British Columbia, in addition to pertinent campaigns such as blocking the rape of the Kalmiopsis. As in past tours, Wolf will be helped by talented volunteer musicians lending the power of rhythm to his words – words that excite awareness and incite resistance. This time, however, there will be more emphasis on participation and dance! Hot bands will include the relevant reggae of Rootstock and Clan Dyken (see review this issue), with other performers encouraged to write us about playing. Please contact us if you will help by booking or promoting a show, performing, or organizing an action to follow. In Oregon call 503-846-6055; in California, Mark Dyken, 209-754-1350; in Washington call local contact numbers. And write, ASAP: Lone Wolf Circles, POB 652, Reserve, NM 87830.

****

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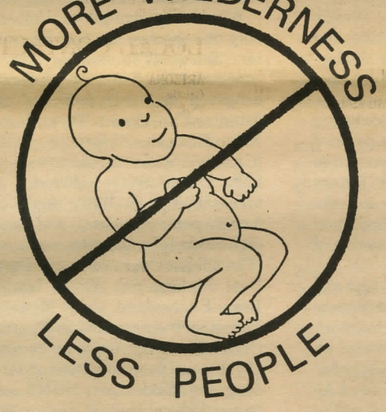

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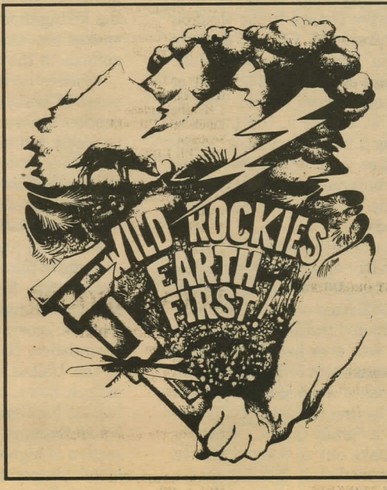

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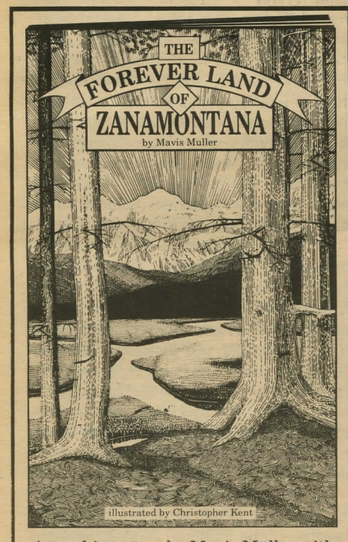

A touching story by Mavis Müller with illustrations by Christopher Kent. This tale was written for children, to cultivate the deep ecology ethic of spirited people who magically become the wilderness in defense of itself; and written for adults to remind them that when believing souls unite to challenge the destroyers, miracles can happen.

To order this book, please send a $5 check or money order to Zanamontana, P.O. Box 1520, Homer, Alaska 99603.

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FROM THE GARDEN TO THE ROUNDUP

by Jasper Carlton

Now the serpent was more subtil than any beast of the field which the Lord God had made....

And the Lord God said unto the woman, What is this that thou has done? And the woman said, The serpent beguiled me, and I did eat.

And the Lord God said unto the serpent, Because thou hast done this, thou art cursed above all cattle, and above every beast of the field; upon thy belly shalt thou go, and dust shalt thou eat all the days of thy life.

—Genesis 3:1, 3:13-14; King James Version

The Paynes Prairie State Preserve lies a few miles south of Gainesville in north-central Florida. It is a unique biological treasure and historically has been prime habitat for reptiles. It was established to protect the native flora and fauna of the area.

But our society's best intentions, laws, and morality were thrown to the wind on Memorial Day weekend, 1987. As tourists and Floridians drove down Interstate Highway 75 and state road 441, both of which cut directly across Paynes Prairie, many species of snakes in the preserve were beginning a mass movement. Biologists are unsure what stimulates these simultaneous movements among different species outside of the pre- and post-denning periods.

As the snakes moved across I-75, many were run over by vehicles. Some drivers intentionally swerved to hit the snakes. But the worst carnage occurred in a rest area for southbound traffic, adjoining the preserve. The rest area had been located by the state Department of Transportation in one of the snakes' important movement areas. One of the first snake sightings was by a boy on a family picnic. The boy pointed the snake out to a maintenance worker, who immediately killed it with a shovel. The slaughter had begun!

Snakes soon became unwelcome visitors among the travelers who stopped at the rest area. The sheriff's office and the Florida Game and Fresh Water Fish Commission were called. A *Gainesville Sun* article described one of the State Game and Fish officers as "the hatchet man of the operation who would catch them with a snake holder and cut their heads off with a machete." Non-poisonous and poisonous snakes alike were killed and no attempt was made to merely prod them back into the preserve. This, despite the fact that the great majority of snakes do not bite people, and even go out of their way to avoid them if given a chance.

A highway patrol trooper encouraged people to pull into the rest area "if they wanted a rattlesnake skin." A rest area attendant was quoted as saying, "If it's got a mouth, it'll bite. And even if it isn't poisonous, I'd probably swell up."

In a two-day period, at least 50 snakes were intentionally killed! Supposedly, most were poisonous Water Moccasins, but no species inventory was taken. Many were left along the road for tourists to gawk at, take home, or for the Florida Department of Transportation to pick up.

The *Gainesville Sun* article was accompanied by a dramatic picture of the proud state maintenance worker with his shovel in one hand and a large dead *Nerodia fasciata* [though he did not acknowledge it as such], a harmless Florida Banded Water Snake, in the other. The article clearly encouraged the slaughter of snakes.

Local herpetologists later pointed out that the snakes' fatal encounters with humans could have been prevented by simply adding a length of one-half inch hardware cloth at ground level to a height of 30 inches, to the existing border fence at the rest stop. Even this minimal precaution would have been unnecessary if, when I-75 was constructed a few years ago, it had been routed around the Paynes Prairie Preserve — or if it had not been built at all.

What is particularly distressing about this tragedy is the fact that state fish and wildlife officials led the slaughter. The values and legal mandate of a natural preserve were forgotten. Biological facts about the snakes were distorted. Indeed, the killing demonstrated once again that snakes are among the most persecuted animals in the world.

Vehicles on highways are a significant cause of death for wildlife in general and reptiles in particular. Highways in Florida probably kill more snakes than those in any other state since Florida is home to the greatest variety of snakes in the country and has one of the fastest growing human populations.

No "death highway" in the US can hold a candle to the east-west corridor in southern Florida, known as "Alligator Alley," that cuts through one of the most unique wetland ecosystems in the world — the Everglades. No other natural ecosystem in the United States has such diversity of flora, fauna, and marine life. It provides habitat for almost one-half of all federally listed Endangered Species. The 80 mile section of highway through it has already killed tens of thousands of reptiles and enough Florida Panthers so that the last remaining subspecies of Mountain Lion in the eastern US will probably never rebound to a viable, naturally reproducing population. It now hovers on the brink of extinction as the Everglades Ecosystem continues to shrink. The major factors limiting reptile populations in the Everglades are the human manipulation of the hydrologic cycle and destruction of natural cover.

But a simple two lane death highway did not satisfy the desires of developers and the tourist industry of southern Florida. An extension of the divided interstate superhighway, I-75, is now under construction along the entire route of Alligator Alley. Upon careful review of the environmental planning process and environmental impact statement (EIS) for this new highway, the Earth First! Biodiversity Project found the planning to be lacking in meaningful consideration for the needs of less known, rare, and Endangered species of plants and animals. We mounted a legal effort to stop the highway, but we were too late in the planning process to win the case.

Many rare and imperiled snakes will be at even greater risk once the new I-75 Alligator Alley is completed. The Eastern Indigo (*Drymachon corais*), the largest snake in North America, and a federally listed Threatened Species, should be reclassified as Endangered due to its declining numbers and threats to its limited remaining habitat. Other rare and sensitive snake species in the Everglades include the Eastern Coachwhip Snake (*Masticophis flagellum*), Scarlet Kingsnake (*Lampropeltis triangulum*), Florida Scarlet Snake (*Cemophora coccinea*), Florida Kingsnake (*Lampropeltis getulus*), Southern Ringneck Snake (*Diadopis punctatus*), Yellow Rat Snake (*Elaphe obsolata*), and the Eastern Hognose Snake (*Heterodon platyrhinos*). The fences along the new I-75 that are supposed to keep larger wildlife species off the distressway will not adequately protect the snakes. Once again, our society is willing to make "compromises" for some large, popular mega-mammals, but not unknown micro-fauna, and in particular NOT SNAKES!

The EF! Biodiversity Project has warned both the Federal Highway Administration and the Florida State Department of Transportation that any confirmed mortality to any of these imperiled species of snakes as a result of the construction and operation of I-75 Alligator Alley could prompt additional legal action, with results perhaps including restrictions on the use, or closure of the new highway.

SNAKES *UNDER* THE ENDANGERED SPECIES ACT

Under the federal Endangered Species Act, the US Fish and Wildlife Service (FWS) has given snakes only a veneer of habitat protection. The FWS has been loath to list snake species under the Act; the lack of current information on the status and distribution of snake species is a major problem in the listing process.

Within the contiguous United States only one species, the San Francisco Garter Snake (*Thamnophis sirtalis tetrataemia*) is listed as federally Endangered and only four are presently listed as Threatened. These four are the New Mexican Ridgenose Rattlesnake (*Crotalus willardi obscurus*), Atlantic Salt Marsh Snake (*Nerodia fasciata taeniata*), Concho Water Snake (*Nerodia harteri paucimaculate*), and Eastern Indigo Snake (*Drymarchon corais couperi*). (The US list also includes the Puerto Rico Boa, Endangered; Virgin Islands Tree Boa, Endangered; and Mona Boa, a Threatened subspecies in Puerto Rico.) Of the five snakes found in the contiguous US that are federally listed under the Endangered Species Act, NONE enjoy protected Critical Habitat designation. Petitions for the formal listing of many other species have apparently been put "on the back burner" due to lack of field research data and lack of support from the public and the "silver spoon" mainstream conservation organizations. The ugly hand of political bio-bigotry once again interferes with what was supposed to be a strong biological protection act.

As mentioned, the large, lustrous, blue-backed Eastern Indigo Snake of Florida should be reclassified as Endangered. It historically inhabited Alabama, Florida, Georgia, Mississippi, and South Carolina, but is now relegated to a minute portion of its original range and is vanishing in the wild due to commercial over-collecting, habitat destruction, and the gassing of Gopher Tortoise burrows – the Eastern Indigo's preferred retreat – by tortoise hunters.

CONCHO WATER SNAKE

Another Threatened Species, the Concho Water Snake, has been the subject of heated controversy in Texas. Texas Earth First!, the EF! Biodiversity Project, and EF! musicians and poets have worked diligently to ensure the survival of viable Concho populations in the wild. Sadly, we are losing this battle.

The rare Concho Water Snake was finally listed as a federally Threatened Species on September 3, 1986. Many activists and herpetologists believe that the listing of the Concho was contingent on prior (and illegal) approval of Stacy Dam, reservoir, and pump station on the Colorado River in west-central Texas. This will dam the Colorado River downstream from the confluence of the Concho River, inundating 46 river miles along the two rivers. It would create a reservoir of 19,200 surface acres. Supposedly, this water is needed by Abilene, San Angelo, and other cities in west Texas. Critical Habitat, proposed for the Concho on January 22, 1986, was deferred (another administrative tactic used to get around the ESA), until the *economic data* on the impact of the proposal could be gathered and assessed. The highest concentrations of Conchos are around the confluence of the Colorado and Concho Rivers.

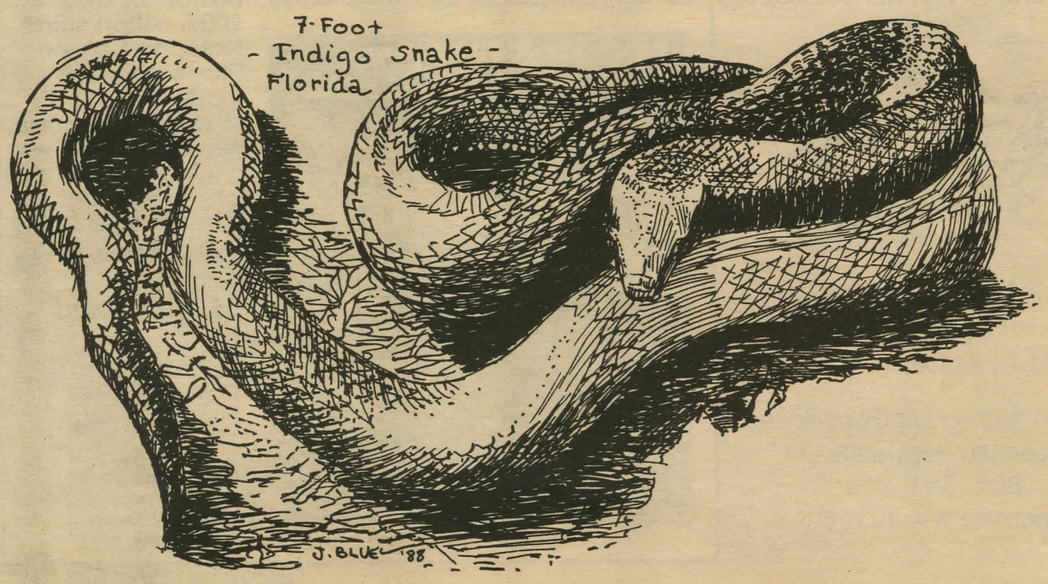
The vulnerable juvenile Conchos require rocky or gravelly areas adjacent to shallow water flowing over rocky shoals or riffles, and including a large percentage of flat rocks under which they hide for thermal regulation and protective cover. Adult snakes utilize shallows, pools beneath overhanging woody vegetation and rocky shorelines. *No viable population of Concho Water Snakes, either adult or juvenile, has ever been found in any Concho or Colorado River reservoir! And yet ... Stacy Dam is now under construction!*

How could this happen? Why wasn't the whole politically skewed process challenged in court? How could the US Fish and Wildlife Service, US Army Corps of Engineers, and a few powerful politicians in Texas write-off almost any possibility for healthy populations of a species federally protected under the Endangered Species Act? The answer, not surprisingly, is that politics and economics interfered with the biological planning process of the Act.

The initial planning process for the proposed Stacy Dam in Texas was monitored by an "Endangered Species Coalition" comprised of most of the mainstream national conservation groups. Despite the overwhelming evidence of political interference, the distortion of biological data, the severe impact of the dam on the Concho Water Snake, and the strong objections of a few of its individual members, the "coalition" decided not to challenge the legality of the Stacy Dam Project. One wonders what would have happened had it not been the welfare of a Threatened *snake* that was imperiled. What if it had been a Bald Eagle or Whooping Crane?

In the late summer of 1987, the newly formed EF! Biodiversity Project had to threaten the Corps of Engineers with a Freedom of Information Act lawsuit before it could obtain the necessary background planning and biological information for the proposed dam project. By the time the information was analyzed, approval for the project had been granted, permits issued, and mitigation measures put into effect. Our objections were ignored, and the project has gone forward.

But this worst case scenario worsened. In December of last year, Frank Dunkle, director of the Fish and Wildlife Service, announced that mitigation efforts to protect the Concho Water Snake while allowing construction to proceed, should be made "at the lowest possible cost" to the Colorado River Municipal Water District. The attempted reneging of legally binding mitigation measures pursuant to Section 7 consultations under the ESA was based, according to Dunkle, on the discovery of a larger population of Conchos than had



6000 Years of Serpentine Persecution

originally been estimated. The Biodiversity Project has not seen any scientifically reliable field data to substantiate this claim and beleives that the discovery of additional Conchos in sub-optimal habitat does not constitute reason for optimism. We are continuing to monitor the application of mitigation measures and Concho population census field data.

RIDGENOSE RATTLESNAKE

The only federally listed rattlesnake under the ESA is the "threatened" New Mexico Ridgenose Rattlesnake, *Crotalus willardi obscurus*. Considering its very restricted range and low population, it to should be up- graded to "endangered status."

The Ridgenose is known to exist in the Animas Mountains of southwestern New Mexico and Sierra San Luis, Chihuahua, Mexico. There is some taxonomic disagreement among biologists concerning subspecies that may still exist in other areas of the Southwest. Its habitat is typically pine-oak woodland at elevations between 5300 and 9000 feet. The Ridgenose is identified by the tip of its snout and a prominent ridge along the upper edge of the snout.

Over-collection and destruction of its habitat has relegated this small rattlesnake to an area in the US probably no larger than two square miles in the Animas Mountains. Only about 6.5 square miles of additional suitable habitat are available in the same area. Excessive cattle grazing in the Animas Mountains may have contributed to the species' decline. Mining, particularly by Tenneco, and future harvesting of wood could further push the species toward extinction.

Crotalus willardi obscurus was listed as an endangered species in the state of New Mexico in 1975, and federally listed as a Threatened Species in 1978. Unfortunately, all of the occupied US habitat of the Ridgenose Rattlesnake is in private hands. The Animas Mountains and other lands of the Gray/Pruett- Wray Cattle company were sold to American Breco, a California- based corporation, in 1982. American Breco has been unwilling to enter into any formal cooperative agreement with either the New Mexico Department of Game and Fish or the US Fish and Wildlife Service to ensure the long-term protection of Ridgenose habitat. For this rapidly disappearing snake, and for the reintroduction of the Mexican Wolf, it is imperative that the Animas Mountains be purchased and managed as a National Wildlife Refuge by the FWS.

The Ridgenose Rattlesnake is one of the species on the Endangered Species List that probably will never be recovered or delisted. Additional suitable historical sites for possible reintroduction are unknown. Since a large, private landholding is involved, enforcement agencies are not in a position to ensure that illegal killings, harassment, collecting and habitat destruction do not occur. An agreement with the Republic of Mexico has not been secured. As the species becomes even rarer, it becomes even more sought after by unscrupulous collectors.

It is an old sad story destined to repeat itself again and again. As a society, we waited too long to act, and allowed the destruction of the species' last habitat. Already, the "management emphasis" for the Ridgenose is beginning to stress the establishment of multiple captive breeding populations – a final desperate attempt to salvage an infinitesimal fragment of Nature's genetic richness. Earth First! demands that we establish the Animas Mountains as a biological preserve and keep humans out!

RATTLESNAKE ROUNDUPS

Each year in the United States, over a dozen well publicized rattlesnake roundups occur. They are savage, ecologically destructive, money-making tourist attractions. Rattlesnake roundups were originally organized by ranchers and farmers in an ill-conceived effort to eliminate the supposed abundance of rattlesnakes that troubled them and their livestock. Snake roundups today, however, are principally held for commercial, "charitable," and publicity reasons in small towns. Roundup promoters describe these events as "educational forums" to teach children about the dangers of poisonous snakes.

Money and trophies are awarded to those individuals bringing in the most pounds, highest numbers, and largest sizes of rattlesnakes. Rattlesnake hunters (rustlers) are further rewarded by being paid about $2.50 per pound of live rattlesnakes collected. Some of the live snakes are sold to venom laboratories.

Rattlesnake hunting usually takes place in late fall or early spring when snakes are slow and sluggish in their communal dens. The most successful hunters use a pressurized spray can filled with gasoline with an attached 10 foot piece of copper tubing on the end. The gasoline is sprayed deep into holes and rocky crevices in the ground which may serve as rattlesnake dens. The purpose is to cause the snakes to flee and capture them alive, but many are either killed immediately by the gas fumes or when their delicate spines are broken as they are lifted with metal tongs.

No one seems to care that other animals also inhabit the holes and crevices that serve as rattlesnake dens. Other reptiles and amphibians, some of which are state or federally protected, are inadvertently killed. Gopher Tortoises, Ringtails, Kit Foxes, Burrowing Owls, rabbits, mice, and skunks are also occasional victims. Since most rattlesnake roundups now only "count" live Western Diamondback Rattlesnakes, other species that are encountered are usually killed and discarded or sold in the very loosely controlled trade in rattlesnake parts. Also, gasoline poisons the soil, killing plants, and may seep into the ground water.

Rattlesnakes are captured alive and taken to roundups in canvas sacks, wooden boxes, or garbage cans. As snakes have become scarcer in recent years, the collecting has occurred in larger and larger areas and often weeks prior to the roundups. The snakes are usually deprived of food and water during this period; and since they have been in their dens all winter without eating, they are already in a weak physical condition, and react slowly in the cool springtime temperatures.

The roundups feature a vast assortment of cruel contests. Prior to being handled, the neck vertebrae of many snakes are inadvertently broken when they are pinned to prevent them from striking. At some bagging contests, contestants display their bravado by trying to stuff the most live snakes in a burlap bag; snakes are dumped into arenas, teased into striking, dragged around and finally beheaded. Some are skinned; some are later eaten by people in the crowds.

This year's effective spring protest of the Jaycee sponsored Taylor, Texas, rattlesnake roundup by Texas Earth First! utilized a large banner that summed up the reality of the event: ANIMAL SLAUGHTER IS NO WAY TO RUN A CHARITY! But, in Taylor and Sweetwater, Texas, repulsion trumps charity, and the snakes become monsters to be slain. Roundup spectators may be offered the opportunity to chop off a rattlesnake head for a price, or to trample a serpent in a contest to determine the fewest stomps needed to kill one. Meanwhile, macho cowboys demonstrate their "death-defying" snake handling and venom milking skills.

Sweetwater boasts the "World's Largest Rattlesnake Roundup." It has been held annually since 1958 on the second weekend in March at the Nolan County "Coliseum." Its organizers brag that the event has killed over 90 tons of Western Diamondback Rattlesnakes. A Sweetwater Jaycees Roundup brochure says that "over the past 5 years the Roundup has averaged over 12,000 pounds of live rattlesnakes per year and 30,000 visitors annually."

No environmental assessments are prepared to record the thousands of wild animals killed each year. Snakes are brought in from throughout Texas and surrounding states, thus the impact area is much greater than west-central Texas. No studies have been conducted to ascertain how serious is the disruption in predator/prey ratios resulting from such events.

Many snake dens in Texas historically held hundreds of snakes at a time each winter. Field reports from herpetological societies during the past few years, however, indicate that the best denning sites now rarely contain more than a few dozen snakes. Countless dens have been made uninhabitable. The natural environment of which these reptiles are a part is being seriously impaired. The mice, rats, rabbits, and other small animals that constitute the prey base of the Western Diamondback Rattlesnake will increase for a while. Ranchers and farmers will then rearm themselves with a vast array of chemical pesticides, the application of which will further degrade delicate biosystems. These local roundups may eventually die out as snakes become extremely scarce, but the price of the species lost must not be tolerated.

Besides allowing these roundups to take place, the state fish and wildlife agencies in Texas, Oklahoma, and New Mexico (the major offending states), have failed to prepare adequate environmental impact assessments of these events or develop rattlesnake management plans. No one really knows the severity of declines in rattlesnake populations, how the reproduction success of snakes has been affected, or the extent of habitat destruction.

This year, Earth First! began its campaign to end rattlesnake roundups. The EF! Biodiversity Project is working with local EF! groups, herpetological societies and other reptile advocacy organizations to challenge these events. The Sweetwater roundup, being the largest, tops our list. Snake roundups in Taylor, Texas; Mangum, Oklahoma; and Alamagordo, New Mexico, will also receive priority attention.

EF! wishes to see these events transformed into positive celebrations *for* snakes – events that would educate people about the true ecology, wonder, and uniqueness of snakes. The EF! Biodiversity Project has made this suggestion in writing to the Chambers of Commerce, trading houses, and local Jaycee groups that annually sponsor these events in the above mentioned states. It will assist those sponsors who are receptive to this new approach in developing educational materials and celebration events.

A comprehensive legal feasibility study is being prepared to determine the degree to which local, state, and federal conservation laws are being violated by rattlesnake roundups. Initial results indicate that both state and federally protected species may have already been illegally impacted. As biologically sound legal positions are developed, the sponsors, municipalities, as well as the state management agencies involved will be formally advised that future roundups will be subject to litigation and possible closure by court order. In addition, various EF! groups are planning innovative actions to foster greater national awareness of these atrocities.

SNAKE ECOLOGY

Snakes were the first vertebrates to be successful on land and have been present on Earth for at least 80 million years (upper Cretaceous period). Scientists have identified over 2700 species of snakes world-wide. Snakes occupy every continent except Antarctica and almost every ecological niche, though they are most abundant and diverse in warmer climates.

The most common snakes in the US are the rat snakes (*Elaphe)*, racers (*Coluber)*, water snakes (*Natrix)*, and green snakes (*Ophleodrys)*. The eastern US has more species of water snakes and a greater variety of snakes in general, while garter snakes are more prevalent in the western part of the country.

Of the 11 families of snakes (order Squamata, suborder Serpentes), 5 are represented in the United States and Canada. Only 19 of the 115 species of snakes found north of Mexico on this continent are poisonous. Seventeen of these are members of the Pit Viper family (Viperidae), represented by 3 genera – *Sistrurus* and *Crotalus*, the rattlesnakes, and *Agkistroden*, the Copperheads and Cottonmouths. Of these, the rattlesnakes are the most persecuted, although all species suffer at the hand of humans.

The bite of a Copperhead is relatively mild, although it can put a harassing adult human in the hospital for a few days and leave a permanent scar. The largest and most poisonous species of rattlesnake is the Florida (Eastern) Diamondback. All snakes are predators and all swallow their prey whole. For their size, snakes are able to eat the largest prey of any vertebrate.

Some rattlesnakes are able to kill animals a hundred times larger than themselves, but they do not utilize their venom when fighting among themselves. In fact, they very rarely bite each other, except in captivity. Conflicts appear to be settled on the basis of a kind of ritual.

In a few exceptional cases, non-venomous snakes such as the large Eastern Indigo kill and eat venomous ones. Snakes are very efficient rodent killers; they also kill quickly.

Most people never see a poisonous

continued on page 18

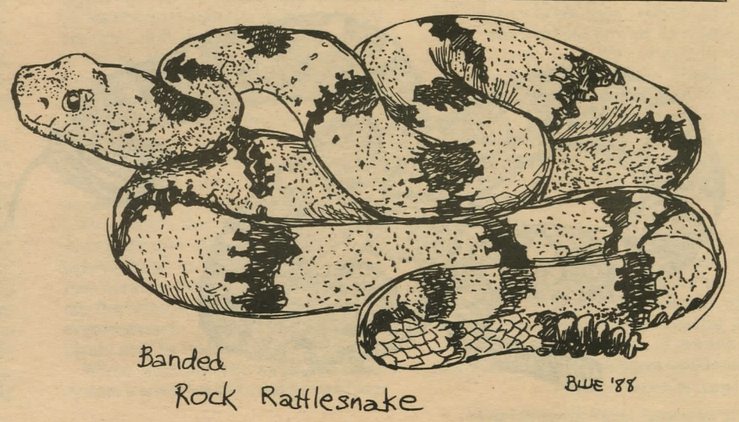
CONCERNING THE PAUCITY OF SNAKE DATA

In conducting research on snakes, what becomes alarmingly evident is the lack of interest in and concern for snakes ... with the corresponding lack of field research and data concerning the actual status and distribution of snakes. Many states have not yet assigned a status rank to their indigenous snake species. Many species of snakes are not even tracked by state heritage programs.

Federal status misclassifications are common. When the EF! Biodiversity Project reviewed the federal and state status and classification of snakes in the contiguous United States, it was surprised to find that no rare species of snakes are now being proposed for immediate listing (to add to the mere five already listed), or are federally classified as priority candidates for listing under the Endangered Species Act. This, despite the fact that dozens of snake species are classified on the state level as critically imperiled either because of rarity or because of other factors demonstrably making them vulnerable to extirpation from various states. Having very little current information on the status of snakes, government agencies guess; and when they guess, they usually err on the side of unsubstantiated optimism rather biological prudence.

Wildlife biologists and the "suit and tie" environmental organizations seem less willing to petition for listing and request federal protection for a snake species under the ESA than for other types of wildlife. Many more species than are acknowledged are in trouble in the US. The US Fish and Wildlife Service has classified almost all candidate species (those that have been the subject of a formal petition) as C2 – lower priority (as opposed to C1). These have almost no chance for listing, as they are being put on the "back burner." The Biodiversity Project is taking the necessary administrative and legal steps to correct this deplorable situation.

–Jasper Carlton



Serpentine Persecution . . .

Continued from page 17

snake in the wild. They over- generalize and imagine that any snake they cannot identify must be poisonous.

The best and most common defense for a snake is retreat into areas secluded or into water. Many species are well camouflaged. If surprised suddenly, many will hiss loudly.

When disturbed, a rattlesnake characteristically rapidly vibrates the tip of its tail, which is composed of dry, loose, horny rings. In its own way, it is saying, "Don't tread on me!" If that fails, it assumes a defensive posture with body coiled and neck held in an S curve, head poised to strike. Most of the vipers and pit vipers strike from a horizontally coiled posture.

The rattlesnake's utilization of its rattle has been successful in warding off Bison, Elk, horses, and even cows, but not humans. Instead, the proverbial rattle has advertised the snake's presence to humans – almost always resulting in the snake's death.

The bright color patterns of some snakes have made difficult their coexistence with humans. Many other species in nature have learned that bright yellow, orange, and red colors are aposematic – warnings of danger. As humans, we take the expression, "red on yellow could kill a fellow" (coral snakes) too seriously. Nonpoisonous Milk Snakes, Scarlet Snakes, Corn Snakes, and Shovel-nosed Snakes are often killed by overly fearful humans due to this misidentification.

The harmless Fox Snake (*Elaphe vulpina)* of the Great Lakes country is probably in serious decline because of several physical and behavioral characteristics. Due to its color patterns, it is often mistaken for a Copperhead. If alarmed, the Fox Snake may rapidly vibrate its tail in leaf and twig litter, and be mistaken for a rattlesnake. Other non-venomous species, such as the Eastern Indigo, have also developed this defense mechanism, which has proven effective against many potential enemies, but not humans. The Fox Snake's preferred habitat in the Great Lakes dune and marshland country has been so overdeveloped that this species has been extirpated from much of its historic range.

Although humans continue to intrude further into snake habitats, on the average only 12 to 15 human deaths a year in the United States result from snake bites. (Our beloved dogs kill more people in this country each year than snakes, and dogs pass on diseases to humans and other species. In contrast, snakes help reduce the spread of rabies.) A large proportion of these human deaths occur as a result of snakes being improperly handled by humans involved in religious cults, illegal harvesting, snake roundups, venom extraction, carnivals, and road-side zoos. There is practically no chance of being bitten and killed by a poisonous snake in the wild in the US if precautions are taken.

Snakes are generally solitary except in winter. They search for food alone, but occasionally share basking and hiding sites. They don't expend energy proving dominance over each other, and demonstrate no entrenched territoriality. Even the much touted "combat dance" of some rattlesnake species may not be aimed at securing dominance among mating males. Some herpetologists now suggest that these dances may be homosexual occurrences with each male endeavoring to copulate with the other.

ADDITIONAL THREATS TO SNAKES

Over-collecting by both private and commercial collectors for the pet store trade and research laboratories has contributed to the severe decline of many species. Thousands of snakes are killed each year for their skins, which are used to make belts, shoes, gloves, pocketbooks and hat bands. The heads of Mohave, Sidewinder, and Western Diamondback Rattlesnakes are imbedded in plastic and sold in tourist traps in Arizona, Texas, and New Mexico. All retail establishments that sell such products should be boycotted and the sale of all rattlesnake parts should be illegal.

The increased use of natural areas by humans for recreation is resulting in even more snakes being killed. Not a single national wilderness management plan in the US adequately considers the security and habitat requirements of snakes.

The 40 to 50 research lab and antivenom institutions around the world are poorly regulated and kill tens of thousands of snakes each year. Many should be closed down. It is estimated by the US Customs office that up to a half million snakes are imported into the US each year for these operations and the international pet trade. The US government should implement more stringent import restrictions and enforcement measures.

As is the case with almost all species in decline, habitat destruction is the major threat to snakes. Since the cold months are the most stressful for them – periods in which they must retreat into protected areas – dens used for hibernation (hibernacula) are particularly important habitat components. Dens are used year after year and may be shared by hundreds of snakes of different species at the same time. Young snakes follow the scent trails left by older snakes to these established dens as cold weather approaches. As roads, subdivisions and other developments are built, dens are often destroyed. If these cold-blooded reptiles cannot find alternative denning sites, they die when cold weather hits. The gassing of snake dens as part of roundups is particularly destructive.

As mentioned before, roads directly and indirectly kill huge numbers of snakes. Roads destroy habitat and intersect snake movement areas. They also attract snakes as warm basking areas. Lying on the pavement in morning to warm their bodies, snakes become easy targets for drivers.

SNAKES IN CAPTIVITY

Snakes are often purchased in pet stores as novelty items. When not properly cared for, they die within a few weeks. King snakes and garter snakes are two of the most popular types for pets. Cages are usually too small, often less than half the length of the snake. Temperatures must be kept uniformly warm for most species, the proper food must be offered at the right times, minerals and vitamins may need to be added to the food, and plenty of water must be provided. Active species of snakes are prone to rub their snouts against their cages, causing injury that can become infected. A snake in captivity needs habitat conditions as close as possible to its wild habitat. Such conditions are rarely provided. Of course, even if they are, it is better to leave snakes undisturbed in the wild.

People who have tired of keeping snakes have released them into improper alien habitat, where they die. Others have released exotic species into the wild. In some places, such as southern Florida, exotic species have become well established and replaced native species.

HISTORICAL BIAS AGAINST SNAKES

From whence cometh our deep rooted revulsion toward the serpent? Its roots, perchance, may lie in the Book of Genesis. According to the Judeo-Christian tradition, man's negative relationship with snakes began in the Garden of Eden. Sinister serpent symbols similar to those employed in the Bible recur in our culture. The perpetuation of the image of the snake representing evil, and the general Christian concept of human dominance over nature, have certainly contributed to the persecution of snakes.

In addition to religious traditions, tall folk tales have perpetuated our irrational fear of snakes by portraying them as evil, fearsome demons. Records indicate that early settlers in America killed snakes. Native Americans, however, considered snakes messengers from the spirit world.

Snakes seek the seclusion and moderate temperature ranges of dens and caves – dark places foreign to humans. Ironically, species found in caves (e.g., bats, blind fish and crayfish, cave bugs) – are generally even less harmful to humans than are other species. (However, caves are not necessarily appropriate places for human travel. They are extremely ecologically sensitive, and most do not have adequate protection.)

Perhaps our antipathy is partially due to the physical characteristics of snakes – elongated scaly bodies without limbs, eyelids, or external ear openings. Perhaps it is because they are all exclusively carnivorous and swallow their prey whole.

Most of us as children found the "lower" vertebrates to be fascinating. Many occasionally found and took home a snake, turtle, or lizard. But we probably also observed adults bashing in the heads of snakes. We must conclude that our bias against snakes is a learned behavior. Children can be taught compassion for all life forms, including snakes, but adults must begin to set an example for them to emulate.

Humans tend to project their own moral standards and value systems into the natural world. We may perceive the Eastern Indigo Snake's killing and eating of a venomous snake as beneficial, but cringe at the sight of a snake eating a prey animal which they judge to be harmless, whether a lizard, mouse, or baby rabbit. As mentioned before, snakes kill quickly; but regardless of this, we err when we attach negative moral value to snakes. *There is no morality in nature.* Morality is a human construct, useful for judging and governing our own actions, but not those of wild creatures. When we view snakes as evil, we are guilty of employing a sort of pathetic fallacy to justify our irrational aversion toward these reptiles.

CONCLUSION

Most people feel no empathy for snakes, but we have an obligation as Earth First!ers to speak and act on behalf of all life forms – reptiles included. A snake, although it cannot cry out, feels as much pain and terror as a domestic cat, or a wild Whooping Crane. Cruelty is cruelty, no matter how unattractive or unusual its victim. True "living wilderness" must be a sanctuary for all indigenous life forms, including our fascinating herpeto fauna.

Too few among us are ophiophiles (snake lovers), and too few appreciate the silent elegance of serpentine locomotion, and the unique hissing that is part of the grand music of Nature. Spend a minute, or a day, observing a snake – become part of its habitat. You will be richly rewarded and will discover that snakes are little known natural gems that sparkle biological diversity.

How many of today's reptiles will follow their prehistoric relatives – pterosaurs, dinosaurs, and ichthyosaurs – into extinction? In large measure that is up to us, at least during this brief micro-second of Earth's history we call the 20th century.

Disregarding the fundamental importance of our reptilian brains – the portion of the brain which directs essential bodily processes – we have refused to accept our biological connection to reptiles; and where snakes are concerned, we have reached our lowest level in our fall from Nature. The same evolutionary process that formed the Western Diamondback Rattlesnake fashioned *Homo sapiens*. Our biological destinies are intertwined. It's time for snakes and humans to share Earth in peaceful coexistence.

WHAT YOU CAN DO:

1) Write to the following sponsors of rattlesnake roundups expressing your opinion of such events:
Sweetwater Jaycees and Sweetwater Chamber of Commerce, POB 1148, Sweetwater, TX 79556
Taylor Jaycees, c/o Taylor Chamber of Commerce, Taylor, TX 76574
Alamogordo Chamber of Commerce, POB 518, Alamogordo, NM 88310
Moore's Trading Post (direct sponsor of the Alamogordo snake roundup), 133 Hwy 82E, RR 1 Box 133A (#A), Alamogordo, NM 88310
Chamber of Commerce, Mangum, Oklahoma 73554

2) Write the State Tourist Bureaus and governors of Texas, New Mexico, and Oklahoma stating that you and your family will not visit their state unless rattlesnake roundups are stopped.

3) Write or call the following state fish and wildlife agencies urging them to end snake roundups in their respective states:
Texas Parks and Wildlife Dept, 4200 Smith School Rd, Austin, TX 78744 (512-389-4800)
New Mexico Natural Resources Dept, Village Bld, Santa Fe, NM 87503 (505-827-7835)
Oklahoma Dept of Wildlife Conservation, 1801 N Lincoln, POB 53465, Oklahoma City, Oklahoma 73152 (405-521-3851)

4) Write your state fish and wildlife department and state representative urging them to work for protected status for all species of snakes.

5) New Hampshire and Vermont have refused to give the few remaining colonies of Eastern Diamondback Rattlesnakes any protection. This species may soon disappear in these states if protective actions are not taken. Write:
New Hampshire Fish & Game Dept, 34 Bridge St, Concord, NH 03301
Vermont Dept of Fish & Wildlife, Waterbury Complex, 10 South, Waterbury, VT 05602

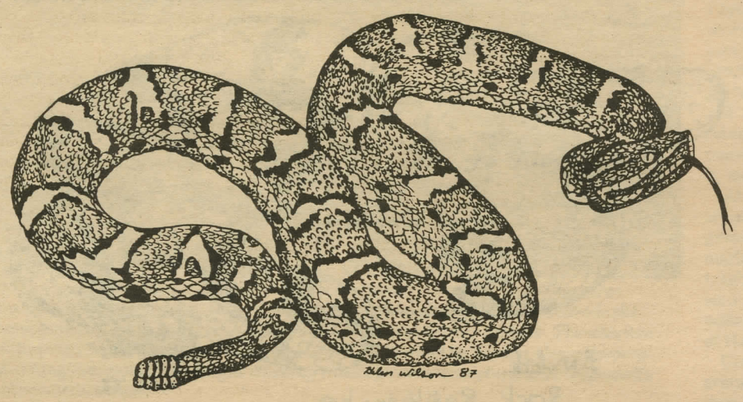
6) For the Concho Water Snake, write the Director, US Fish & Wildlife Service, Interior Dept, 18th and C Sts, NW, Washington, DC 20240. Send a copy to your Congresspersons (senators, US Senate, Washington, DC 20510; representative, House of Representatives, DC 20515). Voice your dismay that the Stacy Dam was approved by the FWS, jeopardizing the Concho's future existence. Insist that the mitigation stipulations in the FWS Biological Opinion for the project be fully implemented and that construction of the dam be stopped if snake monitoring and recovery efforts fail.

7) Also, write the Director of the US Fish & Wildlife Service encouraging the Service to expedite the listing and protection of rare and sensitive species of snakes under the Endangered Species Act. Remind the director that lack of snake census data is no excuse for not extending protection to these species. Please send a copy of your letter and the FWS response to the EF! Biodiversity Project.

8) For the Ridgenose Rattlesnake: Write Michael Spear, Region 2 Director, US Fish & Wildlife Service, POB 1306, Albuquerque, NM 87103, encouraging the Service to purchase as much of the Animas Mountains in New Mexico as possible for a National Wildlife Refuge. Stress protection for the Ridgenose and the suitability of the area as a recovery location for the Mexican Wolf.

9) Contact your state fish and wildlife agency and the EF! Biodiversity Project if you learn of any killing, harassment, or illegal collecting of any of the federally Threatened or Endangered Species of snakes.

10) The EF! Biodiversity Project urges biologists and herpetologists to share with us biological data on the status and distribution of rare and sensitive species of snakes. Sources of information will be kept confidential, upon



Heaven and Hell in a Mexican Biosphere Reserve

by Gary Nabhan, copyright 1988

A liquidambar flower floats out of the heavens, and lands on my field notebook. Smaller than the fingernail of my pinkie, it has drifted down from a tree that can reach ninety feet tall here in the cloud forest of the Sierra de Guatemala in Tamaulipas, Mexico. I look up, and all around me, but do not see any liquidambars towering above me in the canopy. That is how it often is in this moist tropical vegetation type; a dozen or so species of trees sharing the same space, to the extent that it is hard to track any particular species. When I consider another fifteen or so shrubs, subshrubs and vines in the four understory strata immediately around me, my mind becomes boggled. I knew in advance that species diversity would be high here, but I had not been prepared for the low visibility and low redundancy. I don't see enough of a plant to settle on a mental image of it.

While I search for the five-lobed leaves of liquidambar, I tentatively identify a few of the other trees, though they are shrouded by deep shadows and draped with Spanish moss, tank bromeliads and orchids. It seems a bizarre mix: pines, podocarpus, hickories, firs, oaks, magnolias, redbuds, sugar maples, with passionvines and sarsasparillas twining up their trunks. A hummingbird perches forty feet up in the canopy, then zooms off, zigzagging between branches until it reaches the reds and blues of a bromeliad in flower, within a glossy green rosette strung high above the ground.

I am reminded of the name of this place: Rancho de Cielo. Typically translated as "Sky Ranch," I prefer another gloss: "Ranch of the Heavens." Although the cloud forest is perched on the side, not the summit, of the Sierra Madre Oriental, heavy mists and fogs frequently obscure the view from its 3500 foot vantage point. I feel wrapped into the leafy canopies, all covered with foggy sauce. If an angel walked up to me out of the mist to announce that I'd reached paradise, I would be hard-pressed to disagree.

And yet, many folks have felt the hell that this land has gone through, before being decreed the Reserva de la Biosfera "El Cielo" by the Mexican government and by UNESCO's Man and Biosphere (MAB) program [a United Nations program to protect unspoiled lands and their local peoples]. Today, over 36,000 hectares of the 144,530 hectare reserve form a protected nucleus which can't be exploited by private, industrial, or government development schemes. However, this acreage, and its inhabitants, have suffered in the past. Conservation, in this sense, is letting nature's healing processes take their course.

In the early 1950s, after hardly any occupation for decades, the Sierra de Guatemala was opened to woodcutters, who moved into the Cielo area from the Mexican states of Michoacan and Hidalgo. Unaware that they were lumbering the northernmost cloud forest relic in the Americas, these woodcutters came into the sierras by the thousands. They found forests that were largely in a state of climax, but between 1951 and 1985, much of the montane vegetation accessible above 2700 feet was cut once, if not twice. The woodcutting colonists also hunted wild cats and game birds, introduced exotic grasses and insects, and opened clearings for maize agriculture. There were feuds between local residents for the meager resources of the area, and in 1966, a Canadian hermit was killed at El Cielo. Another hermit committed suicide. Exploitation and social unrest characterized the area.

However, all along there were ecologists in both Mexico and the United States who realized the value of the Sierra de Guatemala and its five major biotic communities. As early as 1955, Paul Martin and other American scientists offered $500 to a Mexican conservation organization as a down payment to establish a sanctuary in the tropical forests there. Although this initiative did not bear fruit, Mexican ecologists, such as Efraim Hernandez-X and Enrique Beltran, told their students and associates of the pivotal biogeographic position of the Sierra de Guatemala. Finally, when Gonzalvo Halffler and others in Mexico's Institute of Ecology were reviewing possibilities for reserves which could represent a cross-section of Mexico's biotic provinces, El Cielo in the Sierra de Guatemala emerged among the leading candidates for conservation. In July 1985, the governor of Tamaulipas announced the formation of the El Cielo reserve. In October 1986, UNESCO declared it part of a global chain of biosphere reserves, with Humberto Suzan, an ecologist in Tamaulipas, placed in charge of research. Between these two dates, the sawmills and other extractive industries were informed that the nucleus of the reserve would be off-limits to exploitation, and were effectively shut down.

Suddenly out of work, hundreds of families who had colonized the area since 1950 left the sierra for good. Only 18 families wished to stay in the protected nucleus of the reserve, where they are allowed to farm on a small scale and use local wild resources only for self-consumption. Another 150 families who had settled in the buffer zone of the reserve were also limited from initiating certain extractive activities, but are not prohibited from making a living there.

The gist of the biosphere reserve concept, as adopted in Mexico and other developing countries, is that land conservation should have long-term benefits for the human community in and around the reserve. In a sense, the Sierra de Guatemala has always helped farmers in the valleys below, serving as a hydrological buffer and providing them with a stable supply of irrigation water. Because of its karstic geology, the sierra acts as a large sponge, with 100 inches of annual rainfall being sucked into the rock beneath the shallow soils, and trickling down through strata to emerge from near-constant springs at the base of the range. There, several rivers are diverted into irrigation canals feeding the valley's fields below, without the need for a reservoir to protect the farmers from floods or droughts. A healthy watershed does have benefits for surrounding communities.

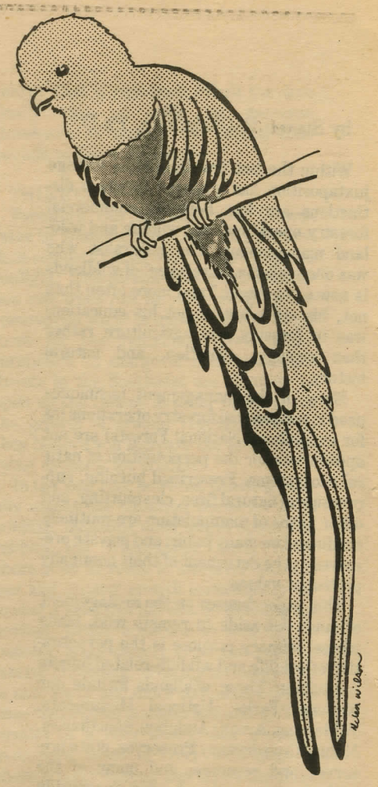
And yet, the biosphere reserve should offer additional benefits to local residents. By studying natural forest regeneration dynamics inside the reserve, the Institute of Ecology hopes to offer foresters in surrounding areas a scheme for sustainable yield for mixed-species stands that are likely to remain open to woodcutting. Medicinal and ornamental plants, once identified for their commercial potential, will be grown from seed or cuttings in nurseries near the reserve which will employ the former woodcutters. And guided natural history tourism is already providing some income to a few families, who feed and shelter scientists during their travels.

Nevertheless, it has taken the local residents considerable time to warm up to the idea of the reserve. Although the biosphere reserve concept is much more flexible and community-responsive than that of a national park or wildlife sanctuary, campesinos long remained bitter and fearful of the controls it placed on their activities. When one botanist encountered a campesino who had just shot a squirrel along a trail in the reserve, the campesino pleaded with him not to tell the authorities. *"La reserva va a chingarme,"* he said, (The reserve is going to screw me). The botanist patiently explained that this scale of hunting and gathering for home consumption will not result in any punishment. Today, the families in the reserve no longer hide newly-hunted armadillos or great curassows when researchers visit them; trust has begun to grow.

Gloria Travera, a Tamaulipan ethnobotanist, has spent weeks living with these sierra families to document their knowledge of the forest. She has recorded the names and uses of 210 plants, both native (58%) and introduced. She hopes that this economic plant inventory will suggest sustainable options that can be developed in the buffer zone to relieve the economic instability which followed the establishment of the reserve. With more than 700 species of plants already identified from the sierra, including 7 new to science, it is likely that a few dozen species can provide income to local families without being depleted. In the meantime, the protection of the tropical forest vegetation itself is assured. The logged-over forests have in some places recovered to nearly the same size, if not the diversity, that Paul Martin saw when he first reached El Cielo in 1948.

While most scientists who visit the reserve reach for the Heavens by way of an 11 mile stone road which takes three hours to maneuver, few of them descend to inferno on the rain-shadow side of the sierra. There, in the Jaumave Valley, arid thornscrub vegetation sparsely covers the soil, and temperatures run 20 degrees Fahrenheit hotter than in the cloud forest above. Humberto Suzan knew I could take the heat, so he drove me to the backside of the reserve which few visitors ever see. Although drier and less diverse than the cloud forest, the desertic vegetation holds a greater number of endemic, or locally-restricted, plants. The reserve overall contains 36% of the rare and endangered species of northeastern Mexico, and most of these are cacti which grow on the valley slopes. The threat to them is overharvesting for the international trade of succulent ornamental plants.

Humberto, Jorge Jimenez and I spent the morning on our hands and knees, searching between thornbushes for a particular cryptic plant that is globally threatened with extinction. It is valued by Japanese, German and American collectors because the ancient individuals are so attractive as a potted plant. We measured the plants to determine size classes and recorded the microhabitats where they are found. When Humberto later analyzed the data, a pattern emerged. The younger, more cryptic plants can survive in the open, and contribute to a normal bell-shaped curve of population age classes. But this curve is interrupted when the plants reach a salable size; several of the older age classes are altogether missing, and the few older plants still present are all hidden under thorny or toxic plants. It appears that this population was once hit by commercial plant collectors.



Tens of thousands of rare cacti and other succulents still leak out of the arid lands of Tamaulipas, destined for Texas and beyond. When they do occasionally get confiscated by authorities at the international border, they often sit rotting in plastic bags for weeks before the bureaucratic paperwork is completed. They are then passed back to Humberto's wife, cactus conservationist Guadalupe Malda, who has initiated a botanical garden project which utilizes any of these orphans that she can nurse back to health. On the edge of the Jaumave Valley, Guadalupe has established a nursery using the labor of local campesinos – men who formerly collected cacti for foreigners, receiving only a few pesos for each specimen they dug up. Over the last year, the fencing, watering and care of cacti have provided them with an alternative source of income. Some say they will not dig up cacti for foreigners any more.

And yet, while the hellishly hot side of the reserve is now gaining the care and protection it deserves, the demand for cute little potted plants has not diminished. Even National Park gift shops in the US continue to sell field-collected cactus specimens (albeit not from Park grounds). Unless the horticultural hobbyists of the developed world are reeducated so that the demand for rare plants is curbed, there will still be clandestine collection in these wild populations, reserve or no reserve.

The amount of vigilance it would take for the Mexicans to patrol the reserve to control this pressure is far greater than what National Park Service "danger rangers" invest in endangered plant protection today. Humberto's and Guadalupe's efforts to conserve these rarities in their habitats will ultimately fail unless naivete and greed are curbed on this side of the border. In the end, it may be self-enforced constraint which will make the difference between heaven and hell in our lives, in the lives of Mexican peasants, in the cloud forest, and in the desert.

Gary Nabhan is an ethnobotanist and author, whose superlative books include Gathering the Desert. *He is also the assistant director of the Desert Botanical Gardens in Phoenix, Arizona. Gary encourages readers to send letters of support and/or requests for information on El Cielo Biosphere Reserve to: Humberto Suzan, 17 Y 18 Coahuilla 195-2, Cuidad Victoria, Tamaulipas, MEXICO.*

request.

11) Encourage environmental groups to actively defend snakes.

12) Avoid products that you suspect are made from snake parts. Boycott or picket establishments that sell them.

Lawsuits, public protests, and letters to agencies will help, but not completely rescue snakes and their habitat. Attitudes and actions must change. Courageous snake defenders are needed to set an example on our highways, in our classrooms, and in the wilds.

Please contribute to the Earth First! Biodiversity Project. Funds are needed for legal action, public education, field research, and media campaigns on behalf of snakes throughout the country. Contributions made out to the EF! Foundation and earmarked for the EF! Biodiversity Project are tax deductible. Your support is needed and appreciated. Thank you.
Earth First! Foundation, POB 50681, Tucson, AZ 85703
EF! Biodiversity Project, 2365 Willard Rd, Parkersburg, WV 26101

SERPENTINE EXPERIENCES OF THE WRITER

My own orientation to the world of snakes was, admittedly, much different than that of most folks. One of my first retained impressions of wilderness in general and snakes in particular was an experience at age 4 with my father on a small tributary, over 1000 miles up the Amazon River in Brazil. My father was an adventuring horticulturist who, at the time, was tapping giant rubber trees for their sap.

I saw what seemed to me to be a giant of a snake slither off a river bank into the water. My father, whose major bad habit in the Amazon jungle was gobbling down fresh, uncooked parrot eggs, believed that no living thing should be killed unnecessarily. He also believed that we should eat what we kill, and he made me skin, cook and eat the first porcupine I dragged home as a young hunter in Maine. Snakes, he pointed out correctly, consume their entire prey. Those values he passed along to his children.

His fascination for snakes included a demonstrated fearlessness. Shortly after seeing the large snake (probably a large constrictor) disappear into the river, he persuaded me and the rest of our group to take a swim near where we had encountered the giant.

In my early teens, I wandered the back woods of New England with various naturalists, including the much loved Babbitts, who all adored snakes. Never did any of those naturalists allow a snake to be killed, and they were gentle with the individual snakes they handled temporarily for nature education purposes.

Yes, some snakes can be harmful or even deadly to humans, and the human preference for human survival is understandable. But not at the cost of species extinctions!

—Jasper Carlton

Timber Management Is Not

by Steven P. Christman, Ph.D.

Within the last few decades, a strange juxtaposition has emerged in which distinctions are lost between commercial forestry operations and wildlife and wildland management. The naturalist who was once called a "caretaker" of wildlands is now a "manager," and more often than not, his schooling (if not his education) was in forestry and agriculture rather than ecology, evolution, and natural history.

Many of the management techniques used in commercial forestry operations (as for example on National Forests) are not appropriate for the perpetuation of natural ecosystems. Prescribed burning, suppression of natural fires, clearcutting, and other forms of manipulation are routinely conducted on many public and private preserves to the detriment of their nominally protected values.

This paper focuses on the management of lands set aside to remain wild, lands whose primary purpose is the perpetuation of wildlife and wildlife-related human recreation. These wildlands include our National Parks, National Monuments, Wilderness Areas, Audubon Sanctuaries, Nature Conservancy Preserves, state preserves and reserves, and many of the nation's state parks. I refer specifically to lands in the Southeastern United States, but the concepts discussed have much wider application. I define wildlife to include all native plants and animals (including invertebrates) that are not cultivated or domesticated. Feral dogs and pigs are not wildlife, nor are the trees in tree farms.

How and why has the surprising marriage of timber and wildlife management come about? A review of the effects of prescribed burning and other timber management techniques on native wildlife may provide some answers.

PRESCRIBED BURNING

Cattle ranchers, managers of quail hunting plantations, and others who desire to raise grassland species in a forest environment have learned that by setting backburning ground fires at frequent intervals, they can eliminate the shrub layer of the forest and stimulate the grassy ground layer without disturbing the canopy layer. Thus they can produce commercial pine trees and grassland animals on the same property. Managers of commercial southern pine forests (except Sand Pine) know that prescribed burns set downwind after the passage of a winter cold front will backburn slowly into the wind, improving the growing conditions for established pine trees and reducing many species of competing plants. Foresters set the ground and shrub layers of the forest on fire prior to harvesting or maintenance operations in order to improve visibility, facilitate movement through the woods, and reduce the incidence of ticks, chiggers, and snakes. Timber managers also use fire to eliminate post-harvest slash and unused vegetation before replanting a new crop. Pine germination and seedling establishment are improved if bare mineral soil is exposed. In Longleaf Pine plantations, cool winter backburns are used to control a fungus that attacks Longleafs in the grass stage.

The most important reason for prescribed burning, however, is to eliminate the fuel (that is, the ground litter and shrubs) which might ignite from a lightning strike and cause a wild fire (that is, a natural fire) over which the manager would have less control. Natural fires occasionally crown, killing some of the commercially valuable trees, and they rarely follow the forester's management plan.

Today, managers of commercial timberlands use prescribed burning on most pineland ecosystems in the Southeast. Doing so causes the trees to grow faster, permits the maintenance of grassland species such as cattle and quail in the forest environment, "opens up" the woods to human access, and reduces the likelihood of non-prescription (natural) fires.

As the technology of prescribed burning was being refined, ecologists and natural historians began to recognize that natural fires must have been a regular feature of southeastern forests for at least the last 6000 years, based on fossil pollen studies. It followed from this realization that the plants and animals that evolved and survived under a regime of lightning-set fires must be adapted to it. (In fact, we now know of several plant species that cannot reproduce without fire.) It probably was only natural that the caretakers of wildlands from which fire had been artificially excluded looked to commercial foresters for the technology of controlled burning.

But prescribed burns as used by commercial foresters and natural lightning-strike fires are very different. Among other things, prescribed burns are designed to prevent natural fires. Although wildland caretakers recognized that natural fires were an important aspect of Pre-Columbian ecology, they actually excluded them more effectively than ever by using prescribed burning! Today prescribed burning is practiced on most southeastern pinelands, whether commercial forest or wildland.

When a landscape experiences a change or perturbation, there follows a series of plant and animal population increases. For example, when a family of Beavers dam a creek, a pond is created. This new pond drowns terrestrial vegetation, which provides structure for cover and (most importantly) detritus that feeds a multitude of aquatic life forms. Mollusks, crustaceans, insects, fish, amphibians, and other animals (especially microscopic critters) respond with population explosions, fueling a productive and expanding biotic community.

It is, however, short-lived. The Beavers abandon their pond after a few years when it has stabilized as a quiet, still-water pool more in equilibrium with the surrounding land than during its early explosive period. As the old Beaver dam deteriorates, the stream returns to its bed and the new land is colonized with terrestrial plants and animals, again with an abrupt increase in net wildlife production.

Similarly, when a tornado clears a path through a forest, or a fire consumes the canopy, or a paper company clearcuts it, the same thing happens: an explosive increase in available net productivity fuels population increases for those plant and animal species adapted to such disturbances. Again, the phenomenon is short-lived. New pine plantations typically level off in wildlife production at five to ten years of age, new reservoirs in five to seven years.

Fires that kill trees alter the ecosystem, producing flourishing wildlife populations for several years until the forest regenerates itself. Much of the biota of the Southeastern Coastal Plain has evolved under the influences of cyclic perturbations caused by natural fires.

However, commercial foresters cannot let this happen; they must harvest the trees, not sacrifice them to a fluctuating ecosystem. It seems that one of man's strongest desires has been to achieve stability: a steady-state system, devoid of the tumultuous ups and downs so characteristic of natural ecosystems. This means dampening the effects of flooding, drought, and fire, phenomena to which most of the flora and fauna are adapted.

The Ivory-billed Woodpecker went extinct in the US more than thirty years ago because of man's success at dampening natural fluctuations in southeastern landscapes. The Ivory-bill used to fly up to hundreds of miles to find stands within the forest that had suffered recent calamities such as fire, disease, or predation, leaving many trees dead and dying. Only there could the birds find enough prey beneath the bark of decaying trees to feed their young.

Yellow-billed Cuckoos travel great distances to find the special situations – caterpillar or grasshopper outbreaks – that give them their unique place in the ecosystem. The Yellow-billed Cuckoo is likely to become an endangered species as we become better at preventing insect irruptions.

Many wildland caretakers also seek to suppress natural catastrophes. They seek a steady state forest without the booms and busts of natural cycles. Many wildland caretakers routinely attempt to prevent natural fires, and their most powerful tool is winter prescribed burning to eliminate the fuel. They learned this from commercial foresters whose goal is to maximize timber production.

A natural, lightning-strike fire in July 1982 burned about 100 acres on the west end of St. George Island, Florida. Many of the pine trees, some quite large, were killed, but the oaks survived. Some were defoliated, but they sprouted back vigorously. Most trees that normally grow within fire-adapted habitats are not killed by most fires. Walking around this area a year after the fire, I was impressed with the irregularity of the burn. The fire spread through the crowns of the pine trees, killing many of them, but as much as a third of the ground cover was not burned at all. Low spots, fire shadows behind fallen logs, wet places, etc. were passed over by the rapidly advancing flames. These refugia probably ensured the survival of all plant species, and within a year seedlings of the original plant species had already begun to reestablish on the burned areas. Unlike prescribed burns which creep slowly over the ground into the wind, consuming most of the ground litter, natural fires whip and swirl rapidly with the wind, leaping from ground to shrubs to trees and back again, while leaving irregular unburned patches in numerous fire shadows.

Photo by Steven P. Christman

Prescribed burns set by foresters are completely unlike natural fires set by lightning.

The detritus-based food chain supports most forest wildlife. It has been estimated that each year about 90% of the net primary production in southeastern pinelands falls to the ground as litter. (The remaining 10% is stored as cellulose in tree trunks and roots or is consumed by herbivores.) Detritus wood is eaten by fungus and insects, which are eaten by snails and millipedes and other insects, which are eaten by spiders and insects, which are eaten by frogs and lizards and songbirds, which are eaten by snakes and hawks, and so on. Among all the animals of the forest, only the obligate herbivores (e.g., caterpillars, rabbits, deer) and their specific predators and parasites do not rely upon ground litter as the base for their food supplies. [Of course, even the obligate herbivores depend indirectly upon detritus, for it yields soil nutrients essential for the growth of plants.]

Historically, some of the detritus in pine forests was consumed by natural fires and its energy converted to heat which was passed on to the atmosphere. But natural fires did not consume all the litter. Prescribed burns, on the other hand, back slowly into the wind and burn it all. Since prescribed burns eliminate more detritus than natural fires, it follows that the detritus-based food chain (McLitter's?) suffers more under a prescribed burn regime than under a regime of irregular natural fires.

Besides using up the energy required by detrivores and their predators, prescribed burns are more effective than natural fires at reducing shrubbery. They are thus more effective at reducing cover and nesting habitat for forest wildlife.

Natural fires tended to be smaller and more irregular in burn pattern than prescribed burns, and they usually were heading fires, associated with the rain and swirling winds of thunderstorms. Such natural fires created a shifting mosaic of burned-over and unburned areas that in turn contributed to the small size of subsequent fires. By extinguishing natural fires, managers have actually favored larger and more intense conflagrations in the future by maintaining larger blocks of landscape in about the same stage of fire recovery, with few natural fire breaks from previously burned-over areas.

Before fire suppression in southern California, the area was characterized by frequent small fires. Now, after 80 years of extinguishing small fires, managers have eliminated much of the heterogeneity and patchwork of burned-over lands. When a fire starts now, if it isn't extinguished quickly, it is likely to develop into an enormous conflagration.

Natural fires created a habitat mosaic within the landscape that maintained spatial (and temporal) heterogeneity. Such habitat diversity correlates well with wildlife species diversity. Prescribed burns, on the other hand, tend to create monotonous, uniform landscapes, which in turn result in lowered species diversity for native wildlife.

Many ecologists have noted the correlation between the diversity of foliage levels in the forest and the number of species able to co-exist there. Successful prescribed burns reduce or eliminate the shrub layers, thereby reducing foliage height diversity and wildlife diversity as well.

Prescribed burns are usually set in the winter following the passage of cold fronts, but natural fires usually occurred in summer as a result of lightning strikes. Plants and animals that survived and evolved under a regime of natural summer head fires are now subjected to back burns in the winter, and no fires at all in the summer. Wire Grass (*Aristida stricta)* will not even produce seeds unless it burns between May and September, and it does not reproduce vegetatively. The use of winter prescribed burning is systematically exterminating Wire Grass, which once covered about three-quarters of all the uplands of the Southeastern Coastal Plain between North Carolina and Mississippi.

The Flatwoods Salamander (*Ambystoma cingulatum)* lives in pine flatwoods where Wire Grass still occurs. Studies conducted in northern Florida using radioisotope telemetry have shown that this salamander spends much of the autumn and winter at the surface of the ground, under superficial litter. Marked individuals have been located under a single leaf and a small pile of pine needles. But winter prescribed burns consume that superficial litter (and Flatwoods Salamanders?). In the summer (during thunderstorm season), Flatwoods Salamanders can hardly be found at all, and presumably are deep beneath the

Steven P. Christman, Ph.D., works for the Florida State Museum, University of Florida. This article is condensed from one which appeared first in proceedings of the 4th Annual Meeting of the Gopher Tortoise Council, Valdosta, GA, 29 October 1983. Christman was fired from his long-term Research Wildlife Biologist position with the US Fish & Wildlife Service because of this article and a letter-to-the-editor concerning shooting of Peregrine Falcons on public land in Florida.

Wildlife Management

ground in root holes and burrows, safe from summer fires. Today, Flatwoods Salamanders are declining in numbers even where pine forests still remain.

Within the Southeast in general, and Florida in particular, there are more species and more individuals of birds present during the winter than during the summer. These birds nest in more northern latitudes, but spend from two to six months on southern wintering grounds. Forest managers set the woods on fire during this period of greatest bird abundance. Many of these winter-resident bird species feed on the fruits and seeds of grasses and shrubs that grow in the forest understory. In fact, many wintering species, such as the Ruby-crowned Kinglet, Gray Catbird, Yellow-rumped Warbler, and Palm Warbler, depend upon the fruits and seeds of the very shrub species that forest managers seek to eliminate – Wax Myrtle (*Myrica cerifera*), Gallberry (*Ilex glabra*), Yaupon (*I. vomitoria*), the Fetterbushes (*Lyonia ferruginea* and *L. lucida*), Chokeberry (*Aronia arbutifolia*) – and upon the grasses, now heavy with seed. Whereas only five species of sparrows summer in Florida, at least 19 species are present during winter. Ground-foraging birds, including White-throated Sparrows, Chipping Sparrows, and Rufous-sided Towhees, disappear following prescribed burns in pinelands, as do wintering rails, Sharp-tailed Sparrows, Marsh Wrens, and Sedge Wrens following prescribed burns in marshes.

Effects of prescribed burning and natural fire suppression on native wildlife and natural communities may be summarized as follows: (1) reduction or elimination of natural fires (to which the biota was adapted), leading to the extermination of those species that cannot adapt to changes in the season or type of fire; (2) reduction of foliage height diversity (by creating a two-layered instead of multi-layered forest), causing a reduction in wildlife diversity as well; (3) frequent and more complete loss of the energy stored in ground litter (combustion replaces metabolism); (4) frequent and more complete elimination of wildlife cover on the forest floor; (5) reduction in the shrub layer that formerly supplied food and cover for wildlife; (6) short-term elimination of grass and shrub seeds and fruits needed by wintering birds; (7) reduction in spatial and temporal habitat heterogeneity, and hence wildlife species diversity; (8) an ever-increasing likelihood of larger and more intense fires; and (9) the loss of limited human and financial resources to commercial fire management operations at the expense of other, more appropriate, wildland and wildlife programs.

TIMBER HARVESTING

Some caretakers of our wildlands have embraced timber harvesting, another commercial forest management practice, in the belief that it will help perpetuate natural ecosystems.

In the southeastern United States today, there are more "weedy" species (i.e., species adapted for the rapid recolonization of disturbed habitats) than non-weedy species. That is, there are more species of plants and animals with generalized food and habitat requirements, high potential rates of reproduction, and high mobility ("r-adapted species," adapted to disturbed habitats), than there are species on the opposite ends of these scales ("K-adapted species," adapted to mature or old growth habitats). There are two reasons for this: First, some of the species adapted to mature and old growth forests, like the Ivory-billed Woodpecker and Bachman's Warbler, have already gone extinct. Second, young disturbed systems, although usually less productive, actually make more energy available for consumers than do mature systems. That is, more of the net primary production of plants in an early successional stage is available to wildlife (either herbivores eating living plant tissue, or detrivores eating dead plant tissue), and less is stored by the producers themselves in trunks and roots.

In mature forests, the trees effectively hoard much of the energy they convert from the sun in their own trunks and roots (which most animals cannot eat). Until the tree dies, that energy does not circulate in the system. On the other hand, young forests and early seral stages (early stages of plant succession) are dominated by grasses, forbs, and herbs with faster (often annual) turnover rates. Because these plants are more palatable and are constantly being returned to the detritus, younger systems have more energy available to the herbivores, detrivores, and secondary consumers. The increased availability of energy in the early stages of forest recovery or succession supports a greater biomass of wildlife, and more wildlife biomass usually means more species of wildlife.

In the mature forest, because less of the annual primary production per unit area is actually available at any one time, an animal requires much more area to meet the same energy requirements as an animal living in second growth. Consider two species with about the same body mass and metabolism. The Downy Woodpecker is adapted to disturbed habitats such as recent burns, tornado paths, or young second growth forests, whereas the Red-cockaded Woodpecker is adapted to mature forests and old growth. It takes more acreage of mature pine forest to support a Red-cockaded Woodpecker than acreage of second growth to support a Downy Woodpecker, even though the birds are the same size and have the same caloric intake.

As a result of this dynamic, when a mature forest is converted to a clearcut and subsequently to a young second growth forest, there usually will be more wildlife and often more species of wildlife for several years thereafter. Many caretakers of wildlands have become timber managers as they cut and sell the trees in order to increase the number of species in their forests. The winners are the common weedy species. The losers are those species still extant that cannot survive in disturbed habitats and instead require large expanses of mature forest.

The negative effects on forest wildlife caused by clearcutting should be obvious to anyone, but in a 1983 paper published in the journal *Science*, a team of academic foresters from the University of Florida reported that they found more plant species on a recent North Florida clearcut than in an adjacent uncut pine stand. Clearcutting, they reported triumphantly, increased plant species diversity, suggesting implications for wildlife management! A close reading of their data showed that although forest-adapted species of plants were no longer present, the weeds that had colonized the new "field" added up to more species. So much for scientific forestry.

On the average, about 1% or 2% of a natural forest is regenerated each year, usually in small blocks. Most of this regeneration occurs in gaps caused by the death of individual or small groups of trees. Large-scale disturbances (such as hurricanes or very large killing fires) were much rarer, occurring only once in 800 to 1000 years in Maine and New Hampshire, and perhaps slightly more frequently in the southeastern U.S.

Commercial clearcutting leaves grassy, early seral stage areas that usually are larger than the naturally disturbed areas, such as areas cleared by killing fires, blowdowns, tornado paths, and Beaver ponds, that characterized the unmanaged forest. Larger deforested areas mean simply that less area remains in mature forest, and as we have seen, native wildlife is adapted to large blocks of mature forest, interspersed with small blocks of disturbed stands. Large openings merely favor the invasion of common grassland and early seral stage weed species.

The purpose of clearcutting is to harvest the wood. In a natural opening the wood (or its ashes) remains in the forest ecosystem. Dead trees support wildlife. Trucking the dead trees away to the sawmill removes (or prevents the development of) natural cavities, loose bark, woodpecker holes, hunting perches, support for vines and epiphytes, structural heterogeneity within the opening (both vertical and horizontal), and warm, damp, dark places in which to hide from the next disturbance.

The forestry literature suggests that removal of trees results in no significant loss of essential nutrients to the ecosystem over the rotation period, and probably increases available nitrogen due to short-term proliferation of legumes immediately after clearing. This implies that one could harvest tree trunks from a site as fast as they grow, indefinitely, without ever needing to fertilize. Yet, many southeastern paper companies already fertilize their pine plantations, now on their second and third cutting cycles.

Because trees transpire much more water than small plants, the local water table rises when trees are harvested. As the water rises, it robs the system of essential nutrients by leaching them out of the upper layers of the soil. Sometimes water rises above the ground and nutrients are lost in the runoff. Erosion may also occur, especially if the forest floor was damaged by heavy harvesting equipment.

But the most serious consequence of removing trees from the forest is the loss of energy that would otherwise have gone into the detritus-based food chain. The trees store this energy in carbon-based compounds manufactured with energy from the sun. When these compounds are broken down by detrivore metabolism, they release energy as heat and the carbon goes back into the atmosphere as carbon dioxide.

A dead tree (snag or log) in the forest supports a complex community of wildlife and a wide-ranging food chain. While the tree lived, it shaded the forest floor, preventing other plants from capturing solar energy while storing away much of the energy that it captured. When the tree finally dies, it adds its immense storehouse of energy and carbon compounds to the ecosystem.

Photo by Steven P. Christman

THINNING

Foresters can increase tree growth rates by thinning the stand, and thus reduce competition for water, nutrients, and sunlight. Undesirable species or misshapen cull trees can be removed from the commercial stand to improve the environment for the remaining trees. Many caretakers in charge of non-commercial forests in the Southeast use thinning to open up the canopy in order to stimulate the growth of ground vegetation which they believe will increase the forest's carrying capacity for wildlife.

In the long run, however, thinning actually makes the situation worse for most wildlife, including such target species as rabbits and White-tailed Deer. While there is an increase in low-level herbaceous and sapling growth immediately following a selective harvest or thinning operation, within a decade or less the remaining trees merely close the gaps by lateral branching, creating a canopy that is now lower and more completely closed than the original undisturbed canopy. This results in a very shady, fast growing, even-aged stand of trees with most of them equally spaced and about the same size. A blowdown or tree death in such a stand will not create a gap such as formerly occurred in the natural forest. To make matters worse, another thinning operation is usually not economically feasible until the stand has recovered to the condition it was in before the first thinning. This means several years as a dark-floored, fast growing stand of trees with a low, completely closed canopy, in which ground level herbaceous and sapling growth is severely retarded if not eliminated. Such a stand of trees is economically ideal, but makes poor habitat for forest wildlife, even for deer.

Commercial thinning, like clearcutting, removes the wood, structure, nutrients, and energy associated with the trees that are removed. In southeastern pinelands, thinning is often preceded by prescribed backburns to eliminate shrubs. Forest wildlife would be better served by the continuous, natural processes of individual tree deaths and self pruning, which provide an intermittent yet dependable supply of energy to the detritus-based food chain, as well as a constantly shifting pattern of sunlit openings.

OTHER MANAGEMENT TECHNIQUES

High grading (also called selective cutting), salvage cutting, and thinning (also called timber stand improvement) are different management options for a commercial forester, but produce similar effects on forest wildlife. All reduce the spatial heterogeneity of the forest, rob the system of cover, structure, nutrients, and energy, and (in the long run) impede the development of understory vegetation.

Salvage cutting is especially harmful for wildlife because it removes the very trees with the highest value to wildlife: the oldest, largest, most damaged, diseased, or soft-wooded trees. When an insect outbreak, fire, tornado, or prolonged flood kills merchantable trees, the commercial forester must act fast to salvage the timber before the forest wildlife salvages it. On the other hand, a wildland caretaker should view such an incident as an important part of a natural ecosystem to which the native biota is adapted.

The occurrence of a Southern Pine Beetle or other insect outbreak within a commercial forest elicits a series of responses from forest managers that include application of chemical insecticides, removal of infected trees, and other attempts to dampen a natural fluctuation in the environment. But in wildland forests such natural cycles should be welcomed, because they fuel short-term population increases in wildlife species, such as insectivorous birds or lizards.

Occasional population increases are important to the long-term survival of wildlife species because they increase the genetic diversity of the gene pool, permitting more flexible and varied responses to subsequent environmental conditions. A population of Pine Warblers, for example, will be genetically more fit (that is,

continued on page 25

Ranchers and Refuges: 3 Case Studies

by George Wuerthner

In 1987, 460 Coyotes were killed on Malheur National Wildlife Refuge in eastern Oregon. Eighty percent were gunned down by hunters in airplanes who raked the canines with semi-automatic shotguns. The rest were trapped or were gassed while in their dens. Refuge personnel also poisoned 124 Common Ravens and shot 13 others. Their rationale for this control was that ravens and Coyotes eat Greater Sandhill Cranes and this is inexcusable behavior at Malheur.

Malheur is not the only National Wildlife Refuge where "wildlife control actions" are commonly undertaken by the US Fish and Wildlife Service, the agency within the Department of Interior which manages the Refuges. At Idaho's Grays Lake National Wildlife Refuge, aerial gunners have killed Coyote and Red Fox. Grays Lake personnel also have used M-44 cyanide Coyote getters and trapping to keep the Refuge free of predators so that ducks and the Whooping Crane, an Endangered species, would have higher survival rates. At Arapaho National Wildlife Refuge in Colorado, Beaver are trapped because their dams slow water on the Illinois River, allowing it to warm – which Refuge personnel feel threatens the river's trout fisheries. Although Coyotes are not on the Arapaho's present list of undesirable wildlife, adult Black-billed Magpies are regularly poisoned and shot, and baby magpies are destroyed whenever nests are found. Magpies eat duck eggs – an unacceptable diet at the Arapaho Refuge.

Besides outright killing of some wildlife species, many Refuges promote water development, including dredging and pond building and the operation of elaborate ditch and irrigation systems. To keep these waterways free of vegetation, some Refuges use herbicides to kill marsh vegetation such as Cattail and bullrushes. At some Refuges, Malheur again being an example, Beaver and Muskrats are trapped to prevent them from damming the canals and irrigation ditches.

What place, if any, does the use of poisons, herbicides, trapping, predator control and other ecological tampering have on the National Wildlife Refuges? It depends upon who you ask. For many, the purpose of our Refuge system is to churn out target animals such as ducks and geese. George Constantino, manager at Malheur, refers to the wildlife unit in his care as a "duck factory." To Constantino, we must manipulate the environment to maximize wildlife production because we have destroyed prime wildlife habitat elsewhere. In Constantino's view, if we are to have surplus ducks for hunting, we need to increase production at our Refuges above natural recruitment rates.

There is some merit to this argument. Malheur Refuge is only a small remnant of what was a huge marsh system lying at the base of Steens Mountain in eastern Oregon. Ranchers have drained wetlands and turned native meadows into hay fields, and their cattle have trampled the riparian zones, eliminating the most productive wildlife habitat in this arid region. The continued use of livestock around and ON the Refuge has further reduced the available habitat for wildlife. The abuses resulting from livestock on these public lands have been well documented in Denzel and Nancy Ferguson's book *Sacred Cows at the Public Trough*. In short, the area around Malheur may no longer be able to produce as many waterfowl and cranes as it did in pre-settlement times without intensive habitat manipulation and control of predation. Furthermore, wildlife habitat degradation at Malheur is minor compared to that in other places along the Pacific flyway, such as the great marshlands which once covered much of California's Central Valley, now converted to rice, wheat and cotton fields.

Despite these habitat losses, we should still question the appropriateness of predator control at Malheur and other Refuges. Constantino says studies showed low recruitment in the Refuge's Sandhill Crane population, which, if not reversed, promised to extirpate the Refuge's entire breeding population. Many factors have contributed to the crane population decline, including the loss of sandhill habitat when Malheur and Harney Lakes spread over surrounding lowlands several years ago following a number of wet years. Also contributing to the decline is the antiquated irrigation system which makes it difficult to control water delivery to the Refuge's meadows – crane habitat.

Malheur exemplifies a deep rooted problem with our present approach toward natural systems. Because of our static view of ecological relationships, we expect areas set aside as wildlife habitat to remain constant, and to fit neatly within the boundaries of our survey lines. We expect this land to produce the same number of animals year after year. We fail to designate areas large enough to sustain ecological change through time or to allow normal habitat quality fluctuations or changes in wildlife habitat use and distribution.

For the cranes at Malheur, predation losses were viewed as the only variable which could be controlled quickly and relatively inexpensively. Yet it is questionable whether predator control is really an important factor in crane and duck survival rates; and if it is, whether other management options could reduce crane and duck losses in a manner more appropriate to a Wildlife Refuge.

A review of past predator control actions gives some insight into this question. In the early 1970s, the poison 1080 was regularly used to control Coyotes on the Refuge and surrounding lands. In addition, aerial hunting and trapping were part of normal Refuge operations. Despite this intensive predator control, the crane recruitment rate varied considerably from year to year. In 1970, the recruitment rate was 12.5%, in 1971 8.9%, and in 1972 only 8.3%. In the years 1973 and 1974 only 0.4% of Sandhills were fledged – even while predator control continued both on and off the Refuge.

Predator control was discontinued on the Refuge between 1977 and 1981. During this period, the recruitment rate was only slightly less than during the years of heavy predator control. In 1977, 5.8 cranes per 100 were recruited, but it improved to 8.9 in 1978, 8.1 in 1979, 7.1 in 1980. In 1987, despite the killing of 460 Coyotes, the fledging success was 10.6% – only slightly better than years without any control at all! Thus, while recruitment rate is slightly lower without predator control, statistics indicate that factors other than predation exert greater influence over recruitment success.

No other experiments have been conducted to determine what these factors might be and if changes in them might increase Sandhill recruitment without the need for predator control. One such factor not explored by Refuge personnel is the use of the Malheur Refuge for domestic livestock production. Ranching is the major economic use of lands surrounding Malheur. Many of the local ranchers graze their livestock on Refuge lands or obtain hay grown on the Refuge. In late winter, adjacent private lands are utilized as calving grounds and the abundance of afterbirth provides a rich food source for Coyotes and other scavengers which Refuge manager Constantino believes contributes to higher predator populations.

If this theory is correct (it has not been scientifically tested), the Fish and Wildlife Service policy of allowing cattle grazing and forage production at Malheur may contribute to higher predator populations. For it is the inexpensive forage provided by public lands which permits many of these ranchers to economically survive. In short, the Refuge helps to maintain the cattle, which produce the afterbirth at calving time, which may contribute to higher predator populations, which MAY be a contributing factor in a crane population decline.

But even if it were found that livestock grazing had no influence on predator populations, there would still be other justifications for eliminating livestock usage of Refuge lands. Research on the Refuge compared predation impacts between idle fields and those under livestock forage production (haying or grazing). The research found significantly higher nesting success in the idle fields, where cover is thick. Thus cranes are more vulnerable to predation in areas where livestock operations are conducted.

Despite the higher nesting success in the untouched meadows, Constantino asserts that crane chicks produced in manipulated environments have higher survival rates because they have more to eat in the mowed fields. Constantino feels livestock operations are necessary for the maintenance of crane populations.

Don Tyron of the Oregon Natural Resources Council believes "it's more than coincidental that the present grazing and haying system happens to be beneficial to livestock production." According to Tyron, methods not requiring livestock grazing for producing wildlife are not seriously considered at the Refuge due to the political pressure exerted by ranchers. This pressure goes all the way to Washington since Oregon's eastern District Congressman, Bob Smith, is a rancher from Burns, Oregon, just north of the Malheur Refuge. Indeed, the Refuge is presently considering an *increase* in grazing.

Of course, the political influence of livestock interests is not limited to Malheur; nearly all large western National Wildlife Refuges are under some kind of grazing program, and in most of these, livestock grazing has significantly altered the native vegetative communities. However, this alteration is invisible to the average citizen except in the worst cases of range abuse. Unlike a clearcut forest, an overgrazed range may still be covered with a dense vegetative mat. Yet the species present are apt to be invaders, exotics, and opportunistic weeds. Few people know which plants are supposed to be present on a particular site, and grasses are particularly difficult to key out. The expertise is lacking even among Refuge personnel.

Complicating the identification process is the lack of controls. Very few areas of the West have not been damaged by livestock grazing and by disruption of natural ecological processes such as periodic wildfire. Professional range managers cannot properly assess damage if they have no idea of how undamaged rangelands appear.

In addition, unlike the abrupt change which accompanies the clearcutting of a forest, the degradation of most rangelands is a long-term gradual reduction in desirable plant cover. Overgrazing is a process so gradual that even individuals who frequently view the land, such as ranchers, may not notice this change.

Because of these problems, most Refuge managers, even where Refuges are severely overgrazed, are under little public pressure for grazing reductions. In addition, some managers defend grazing as a useful vegetation manipulation tool. For example managers at both the Malheur and Grays Lake Refuges told me that livestock grazing was necessary to open up dense marsh vegetation to provide foraging areas for ducks and cranes.

Many managers cite the widely held doctrine that unless plants are cropped, they become decadent due to litter buildup which prevents the establishment of new seedlings and limits effective leaf photosynthetic area on living plants due to shading by dead stems. But the terms "decadence," for grasses, and "overmature," for timber, are meaningful only from an economics perspective. They merely mean that the grasses or trees are not producing additional plant fiber at maximum efficiency. This is only of concern if one wants to maximize production of livestock, or in the case of the timber industry, production of wood fiber. To an ecologist, decadence does not exist [except in land management agencies]. Slow biological growth is natural in some ecosystems.

A healthy grasslands ecosystem is not necessarily one that maximizes grass production. The idea that stagnation results from a lack of grazing is firmly entrenched in range management textbooks and doctrine, yet (conveniently) little research has been done to document if grazing is really necessary for the maintenance of healthy rangelands. Certainly this standard rhetoric is not supported by the high proportion of ungrazed grasslands where range plants appear to be extremely healthy and robust. The few unbiased studies conducted suggest that, in the arid West, grazing is not essential for maintaining good grass production. The Great Plains adapted to frequent and heavy trampling under the hooves of Bison and Pronghorn. In contrast, the arid West was not frequented by Bison, and Pronghorn were less common there

VEGETATION, FIRES, AND GRAZERS AT CMR, MALHEUR, & RED ROCKS LAKE

The vegetation at the different Refuges discussed in this article varies considerably, but vegetational patterns on each Refuge have been severely disrupted by livestock grazing and fire suppression. Nonetheless most of the native species remain.

Charles M Russell National Wildlife Refuge in Montana is shortgrass prairie with cottonwood and Box Elder in the riparian zones. Ponderosa Pine and Limber Pine inhabit some Missouri River "breaks." Other common species include Silver Sage, Big Sagebrush, Greasewood, Shadscale, Douglas-fir, juniper, Buffaloberry, Wild Rose, Snowberry, and Rabbitbrush. Grasses include Western Wheatgrass, Bluebunch Wheatgrass, Blue Grama, Needle and Thread Grass, and Little Bluestem.

Plants on the Malheur NWR in Oregon include juniper, willows, Bluebunch Wheatgrass, Greasewood, cottonwood, bullrush, Shadscale, Big Sagebrush, and Great Basin Wild Rye. Cheatgrass is invading the area.

Vegetation at Red Rocks Lake NWR in Montana consists of Quaking Aspen, Douglas-fir, Subalpine Fir, and various grasses. The many shrubs include willow, and Cinquefoil.

Knowledge of natural fire patterns on these Refuges is even more limited than knowledge of pre-disturbance vegetational patterns. What follows is admittedly speculative, but it is safe to assume that fire played a major role in each of these ecosystems.

The CMR, as a grassland ecosystem, probably had fires quite regularly – likely at 1-10 year intervals. Indians often set them, as did lightning. The rougher land in the Missouri breaks was covered with Ponderosa Pine and other trees because the bare rock did not provide fuel to support fires.

At Malheur, fires likely burned periodically through the region. In dry years, even the bullrushes burned out.

Knowledge of native grazers prior to disturbance is again incomplete. Early explorers' accounts and current faunal patterns provide many clues, however.

Malheur probably did not have many large grazers prior to the white man and cattle. A Bison skull was found in the lake during the 1930s drought, which suggests that this may have been the western edge of the Bison's distributional range, but they were not numerous here if they existed here in breeding numbers at all. The only other large grazers at Malheur were Pronghorn, Mule Deer, and Bighorn Sheep in the mountains near what is now the Refuge.

Lewis and Clark came through the CMR [long before CMR] and marveled at the abundance of wildlife, including Bison, Elk, Bighorn Sheep, Pronghorn, Mule Deer, Gray Wolves, and Grizzlies. Bison at times overgrazed portions of their range. Terracing and trailing, such as major trails to the river for water, were noted. However, wolves, Indians, and hard winters periodically thinned the herds, preventing widespread overgrazing.

At Red Rock Lakes, Bison, Elk, Mule Deer, and Pronghorn, along with Grizzlies and Gray Wolves were present. Old Bison trails can still be traced in the valley. Like at the CMR, some local overgrazing did occur, but again vegetation recovered whenever predators, fire, or Indians reduced Bison numbers.

In areas with heavy grazing, the fuel loading would be reduced, so the ability of the rangeland to carry a fire would be reduced. But the biological productivity would then decline, so grazing animals would go elsewhere to graze since no fences confined them. They probably tended toward areas which had burned several years ago, as the new growth would be succulent and thick. This would relieve grazing pressure on the heavily used areas and eventually enough fuel would accumulate so fires could burn these areas. The grazing pressure would shift back to these areas and the cycle would continue.

than in the grasslands eastward.

For example, research conducted at Nichols Coulee on the Charles M Russell NWR in Montana, where grazing was excluded for 12 years, demonstrated "no range stagnation from nonuse." The research report stated, "the Nichols Coulee area had a higher productivity than similar sites which are grazed by livestock under a rest-rotation grazing system."

That grazing is essential to rangeland health is the central principle of range guru Allan Savory's Holistic Range Management program. But Savory and other researchers who support the idea that range quality declines through non-use by grazing animals do not account for another natural agent – fire. Under natural conditions, most lower elevation western grasslands burned at periodic intervals of between 3 and 20 years. Under natural conditions, fires prevented stagnation due to litter build-up, even without grazing.

In addition, unlike grazing animals which are selective in the plants they choose to eat, and hence leave the less palatable "weeds" behind, fire makes no distinctions. Thus while a grazed range can decline due to selective grazing pressure on the more desirable plants, fire is usually more benign insofar as all plants suffer an equal elimination of above ground parts. The desirable climax grass species usually rebound immediately after a burn, preventing weedy species from invading. (One cautionary note: cheatgrass, an exotic, highly flammable annual which is taking over many western rangelands, may actually increase the frequency of fires to the point that native perennial species cannot survive and cheatgrass may take over the site. It should also be noted that, even in areas formerly heavily grazed by large wild herbivores, domestic livestock's impact on grasses is, at least over the long-term, more severe than would be the native herbivores' impact. While both domestic and native grazers are selective in their eating habits, grazing patterns varied under natural conditions; plants received frequent respites. In contrast, under domestic livestock use, grasslands are subjected repeatedly and regularly to heavy grazing.)

Fire also releases nutrients bound up in dead litter, making them available for plant growth. Grazing proponents argue that manure left by livestock accomplishes this goal, but in the arid West, cow-pies remain intact for years, providing little more nutrient benefit than the unburned dead grasses.

Furthermore, there is a difference in the amount of time between cropping by fires and by grazing animals. Rangelands are often grazed while the grass is still growing. If cropped, the plant attempts to replace the lost photosynthetic surface by channeling more energy into the production of new leaves and stems. This requires the utilization of energy which might otherwise be used in building its root system as insurance against drought, or in seed production to ensure successive regeneration. Fire under natural conditions usually occurs in the dry season, after most range plants have become dormant, thus not draining their energy reserves.

Wildfires may be far more essential to the ecological health of grassland ecosystems than grazing, yet wildfires are usually controlled on our Refuges and other public lands. Part of the reason for control stems from present domestic forage use and consequent obligations of the managing agencies. A fire can temporarily reduce the available forage for livestock grazing, wreaking havoc on the forage allotment system in existing rest-rotation grazing programs. Ranchers are seldom willing to forego grazing their public land allotments because fire eliminated the year's forage production.

Some Refuge managers prefer grazing because it allows specifically targeted cropping of vegetation. A marsh needing reduction of matted growth can be grazed without affecting adjacent lands which may not need cropping. Manipulation of fire is much more difficult and there is always the possibility that fires will burn out of control and char adjacent privately owned rangelands.

But even if one accepts that grazing can accomplish ecological goals in specific situations, it does not follow that grazing by domestic livestock is appropriate. Bison, for example, can fulfill the same ecological role and are aesthetically more appropriate to Wildlife Refuges.

Yet, for managers, there are problems inherent with Bison not presently associated with livestock. Refuge manager Barry Reiswig says he would like to see Bison again grazing at Red Rock Lakes NWR in Montana, but that the use of Bison might cost the financially strapped Refuge more than the present livestock grazing program. Several factors seem to suggest that his economic concerns are well-founded. For one, Buffalo would have to be confined to the Refuge all year, while domestic livestock only graze there during summer and are moved back to their home ranches during winter. Furthermore, on small Refuges, personnel would have to move the Bison frequently from pasture to pasture throughout the year to keep them from overgrazing any portion of the Refuge. On large Refuges a more natural approach would be possible but this would entail reestablishment of predators such as the Gray Wolf, a creature unpopular with ranchers.

Since it is unlikely at present that predators would be reintroduced with Buffalo, Refuge personnel would have to periodically cull excess animals to keep the shaggy beasts in balance with the finite amount of forage available on the Refuge. Again, the Refuge would need to artificially manipulate the environment because of past and current human disruptions of natural processes. Since no grazing receipts would be received, all Bison management costs would have to come from the Refuge's operating budget. Considering the ecological and aesthetic benefits derived from Buffalo grazing, such costs would be worthwhile, but in the present political atmosphere, Refuges are not given the opportunity of weighing the merits of Bison versus livestock.

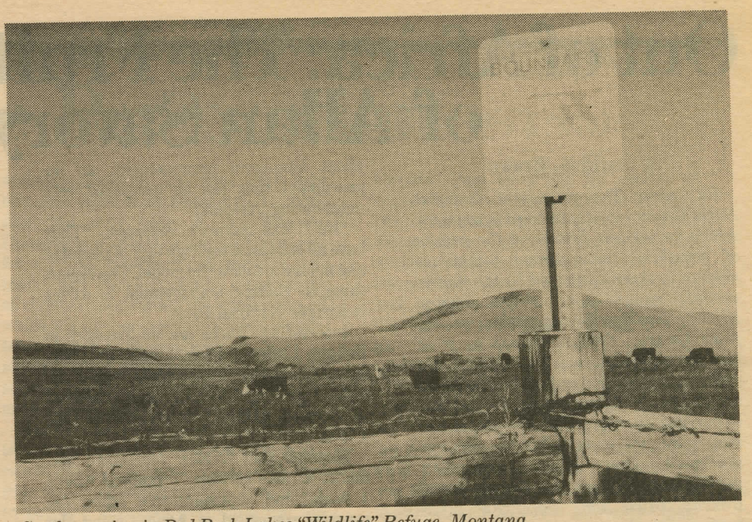
Even if one accepts the dubious premise that there may be advantages to grazing our Refuges with domestic livestock, one should question whether it is necessary to graze at present intensities. Red Rock Lakes manager Reiswig put it succinctly: "Because of politics we graze most pastures every three years, but biologically speaking, it might be better to do it only once every ten years."

Indeed, studies indicate that many negative impacts on wildlife are associated with the present degree of grazing intensity. For example, a study of passerine birds (perching birds, the largest order of birds) nesting in willow riparian habitat at Malheur concluded "there was a significant negative correlation between the frequency of grazing in past years and the number of breeding passerines." Another study at Malheur demonstrated that habitat utilization by Marsh and Rough-legged Hawks was "disproportionately greater" on areas deferred from grazing compared to units grazed by livestock. Another study of nesting ducks showed that "densities on plots idle (not grazed or hayed) for one season were more than 2.5 times greater than plots in other treatments." This is largely because livestock grazing reduces cover for the ducks.

In addition to eliminating cover for wildlife, livestock compete for forage with big game species. At the Charles M Russell National Wildlife Refuge (CMR) in Montana, more of the forage (64%) is presently allotted to livestock than is available for wildlife (38%). (Although if a grazing reduction plan is not blocked, this percentage will be reversed by 1992.) Most western Refuges maintain a similarly disproportionate breakdown of forage allotments. At the CMR in 1987, despite recent livestock grazing permit reductions, 9842 domestic animals utilized the Refuge, compared to an estimated 9000 big game animals.

In addition to consuming wildlife forage and cover, the livestock grazing program saps money away from wildlife needs. For example, the CMR spends approximately $500,000 dollars from its yearly budget to administer the livestock program, but only collects $219,000 in grazing receipts. (Many NWRs do, however, break even.)

Furthermore, Refuge managers are often forced to used funds from their general operating budgets to protect wildlife habitat from grazing impacts. For example, on the CMR, cattle grazing has nearly eliminated young cottonwoods in riparian zones. Large old trees remain, but no young ones survive to replace these "historic" trees established last century prior to heavy cattle grazing here. The Refuge fenced off some cottonwood bottoms along the Musselshell River to keep out livestock and then had to drill two wells to provide cattle with a new water source. This cost the Refuge almost $30,000 – which came from normal operating budgets, not from grazing receipts.



Cattle grazing in Red Rock Lakes "Wildlife" Refuge, Montana.

Even though many Refuges spend more money implementing their grazing programs than they receive in receipts, their managers actually fare better than land managers with the Bureau of Land Management (BLM) and the US Forest Service (FS) since they are allowed to charge higher prices per AUM (Animal Unit Month – a measure of the forage typically consumed by one cow per month) than these other federal land managers. For example, on the Arapaho Wildlife Refuge in Colorado, the present grazing fee is $5.40 per AUM, while on identical adjacent BLM land, a rancher would only pay $1.50 per AUM. (The federal government recently raised the standard fee for FS and BLM lands from $1.35 to $1.50.) Nonetheless, according to Arapaho manager Eugene Patton, "there are no complaints" about the higher price on NWRs since it is still a bargain compared to the price a rancher would pay to graze nearby private lands.

Because, unlike the BLM and FS, the FWS has no set standard fee for AUMs on its lands, the prices vary widely. At Malheur Refuge in Oregon, the price per AUM is set at $3.70 while at Red Rock Lakes Refuge in Montana, ranchers pay $6.50 per AUM. Many Refuge managers maintain that the price paid by ranchers is a bargain. For example, though ranchers grazing livestock on the CMR have been paying $7.61 per AUM, the fair market value is estimated to be $8.61 per AUM. Yet, this past year, Fish and Wildlife Director Frank Dunkle ordered the CMR to *reduce* its grazing fee to $3 per AUM. The rationale given by Dunkle was to provide an "incentive for ranchers to cooperate with refuge management goals."

Many Refuges are managed with an eye toward providing forage for domestic animals. Management techniques and range evaluation tools used by Refuge personnel reflect this goal. One standard measurement technique widely used on public lands evaluates "range condition." To assess range condition, the manager looks over the vegetation growing within random plots. The plants present are compared to the theoretical climax for the site to estimate range condition.

This method of has many problems. To begin, the system utilizes key indicator plants and most indicator species selected are those utilized by livestock (according to Dennis Macomber at the CMR). Thus some plant species that benefit wildlife are not considered, or are considered indicators of poor range condition. An abundance of sagebrush may not be good for cattle production, hence result in a lower range condition rating, but it is absolutely necessary for Sage Grouse.

In addition, this method only requires visual estimates of the percentage of plant species found on each plot; variation occurs between observers. If certain plants are flowering or prominent, they may be overestimated, while less noticeable plants may be underestimated.

Worse, built into the range evaluation system is a bias toward acceptance of poor ecological health in land. For example, range estimated to be in "fair" condition may have as little as 26% of the expected plant species for that particular site. Range rated as "fair" often shows excessive soil erosion and other problems which the range condition technique fails to consider.

Another problem with this system is that it averages the condition of 0)00 entire allotment into one figure. Thus, when a particular allotment is rated as being in "good" condition, some portions, such as steep hillsides or areas far from water, may be untouched; while other parts, usually the riparian zones, wet meadows, Aspen groves and other important wildlife habitat, may be severely damaged. By averaging together various areas within an allotment, the rating system can hide the real condition of key habitats.

Even if overall the allotment is in good range condition, it may fail to provide habitat for some important wildlife species. Dennis Macomber gives an example. Much of the CMR (74%) is considered to be in "good" range condition because the species composition is between 51% and 75% of the expected climax. Nevertheless, these same lands are cropped by cattle sufficiently to eliminate hiding cover for Sharptail Grouse, which require a minimum of 8-10 inches of residual cover. Over most of the grazed portions of the CMR, even those areas rated "excellent," less than 10 inches of residual grass remain after livestock grazing, hence most areas are of little value to Sharptails and other species dependent upon grass cover.

Despite the overriding presence of livestock at most western Refuges, there has been a general trend toward reduction in livestock numbers and use. The benefits in many instances have been substantial. For example, livestock grazing at Red Rock Lakes Wildlife Refuge has been reduced 50% since 1974. Refuge manager Reiswig says, "In the past cattle ate most of the young aspen and willow, so we had little regeneration, but since we've reduced grazing pressure, we're finding aspen suckers in groves that haven't had a sapling survive in 80 years. We're also seeing willow in places where they haven't been since the refuge was first established in the 1930s."

Another benefit of livestock reductions at Red Rock Lakes, 0Reiswig has noted, is the increased ability of Refuge lands to hold snow. Snow is trapped by the higher, denser cover of grasses and shrubs now growing on the Refuge, while it still blows away from the nearby heavily cropped private lands. The added snow accumulation results in greater water infiltration and hence soil moisture, which in turn results in greater plant productivity. Snow cover also provides insulation allowing higher below-snow rodent populations, which in turn provide an expanded winter prey base for predators like weasels, Red Fox and Coyote. In addition, Reiswig notes that recent studies have indicated that the resulting greater summer plant cover has contributed to a rise in ground nesting bird and rodent populations on the Refuge. This higher prey base has likewise lead to larger hawk and falcon populations.

These encouraging trends show that in most instances management which most closely mimics natural ecological processes results in the most cost-effective wildlife benefits. Despite overwhelming evidence that the elimination of grazing on our western Wildlife Refuges would vastly

continued on page 35

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Out of Africa: The Fruitless Past of Allan Savory

by David E. Brown

Ed. note: The prominent biologist David Brown recently traveled to southern Africa to witness first-hand the results of grassland management techniques similar to those advocated by the controversial "range guru" Allan Savory. Brown offers here the impressions gained from his trip. Critical though he is of Savory's teachings, he is less severe in his criticisms than the authors of previous articles in EF! *While the grazing articles in our Mabon 1986 and Mabon 1987 issues may more accurately reflect the common sentiment against Savory among EF! public lands livestock grazing opponents, Brown's article adds significant information for the campaign against the denudation of our public lands.*

By now almost everyone interested in Western range management is aware of Allan Savory and his teachings on Holistic Range Management. His precriptions promise something for everyone. The rancher quickly succumbs to the prospect of doubling his stocking rate; the wildlife biologist is intrigued by the concept of wild herbivores improving the range; the ecologist is titillated by a model that leads land managers toward a conservation ethic; the environmentalist applauds the debunking of predator control as a way to increase livestock profits. Savory's lectures properly skewer range management academicians.

What Savory teaches is an "approach" to rural land management. The mechanics are based, not always with due credit, on the non-selective and short duration grazing systems developed in South Africa. Succinctly put, these systems emphasize intense grazing of small areas for a short period of time followed by rest from grazing. The large numbers of animals in a limited area insure that all the forage is consumed – preferred plants as well as the less palatable species. The hoof action of excited animals tramples the seed bed, aerating the soil. The frequent and lengthy rest periods allow for all the plants to mature and reproduce.

After taking one of his "short courses" in range management, I too was intrigued. Who is Allan Savory and what *is* his game? Are we really to believe that grass follows hoof action as prairie farmers once thought that rain followed the plow? Or, are we being conned by a slick snake-oil salesman promising yet another panacea for all that ails our Western rangelands?

When pressed to show the benefits of Holistic Range Management in the Southwest on lands where it has been tested, Savory and his advocates become evasive. "Enough time has not yet elapsed to see the desired response"; "the prescriptions of the management plan were not followed properly..." and so it goes.

"Where then," I asked, "can one go and see some positive results of Savory-type management?" If the prototype of the system was initiated in South Africa 40 years ago and has been in practice in that country, in Zimbabwe, and in Namibia, there must be some area that can demonstrate the benefits of such an approach. "Is there a farm in Africa where HRM has brought about long-term improvement; an improvement that can be compared with neighboring systems?"

"No," was Savory's response. "They have all collapsed through lack of planning and failure to follow the model. The closest thing to Holistic management in Africa is Kruger National Park."

Interesting. There are *no* livestock in Kruger National Park – only an abundance of wildlife. Nonetheless, "short duration" grazing has long been practiced in southern Africa. I determined to take a look.

Through two former Zimbabwe and South African citizens, I inquired where I could find representative farms (as ranches are called in Africa) using the techniques that Savory espoused. The lists provided by the Production Executive of The Cattle Producers' Association and the Director of Veterinary Services for Zimbabwe were short. Moreover the "between the lines" message was decidedly negative, and the statements indicated that the attempts were in the past: "There are many farmers who *have tried* the Savory System over the years, some supporting it and others condemning it..." "A number of other ranchers *have tried* the system but have since moved off it." (italics added) But then, Savory, by his own admission, hadn't left Zimbabwe under the best of circumstances. Perhaps Zimbabwe was a poor place for a test.

Sally Antrobus, former editor of South Africa's national parks magazine, *Custos*, was more encouraging. She set up a tour to three farms in the semi-arid Orange Free State and interior Cape region where short duration grazing originated, and where Savory got his range management ideas in the 1960s. All three farms were still managed under short duration grazing systems, and one, in the semi-arid "Karoo," was owned by the family of a former classmate of Savory. If Savory's teachings couldn't get a fair shake here, they couldn't anywhere.

The shrub-invaded grasslands of the Karoo provide an ideal comparison with much of the American Southwest. The Karoo is located between parallels 31 and 34 degrees south – about the same distance south of the Equator that southern Arizona and New Mexico are north of the Equator. The climate of the two regions is similar – highly variable annual precipitation averaging between 7 and 17 inches, half or more of it falling during their respective summer growing seasons. Winter rainfall, while less predictable, can be significant; freezing temperatures of short duration occur during most winters. The ground cover consists of warm season grasses, spring-flowering shrubs, and bare earth punctuated by thorny, short-statured trees (acacias). Even the Karoo's 3500 to 7000 foot elevations are reminiscent of our border rangelands, and the landscapes of the two regions are remarkably similar. (To be more specific in this comparison, the Karoo looks and behaves most like the Chihuahuan Desert. Chihuahuan desertscrub and desert grasslands are summer rainfall biomes. Sonoran Desert rainfall varies from area to area, but on average is fairly evenly divided between summer and winter.)

Range rehabilitation has long been of concern in South Africa and there is much to be learned from experiences there. The Hillside farm of Len and Denise Howell near the town of Springfontein is an excellent example. Returning home from the war after an absence of five years, Len was amazed at how much his veld – the South African equivalent of range – had deteriorated. Soil Conservation Districts, modeled after those in the United States, were being formed in 1945 and the Howells started one. Farmers reduced stocking rates and instituted a system of three "rest rotation" pastures, with one pasture grazed for four months while the other two rested. After two years of improvement, however, the condition of both the veld and the stock dropped off. Bare ground continued to increase along with the invasion of such unpalatable Karoo bushes as bitterbush. Many farmers abandoned rest rotation and went back to continuous grazing.

Howell, instead, initiated a series of range experiments after consulting Professor Acocks, who had long been concerned with the deterioration of South Africa's velds. Acocks reasoned that the reduced stocking rates alone were not working because the animals always selected the most nutritious plants first, leaving the least desirable ones to reproduce and multiply. The stock's condition was declining because this selective grazing was removing the best food plants. Dividing Hillside farm into a dozen fenced pastures, or paddocks, allowed Howell to intensively graze all the veld, but also to give each plant an extensive rest. The result was a decided improvement. Further experiments followed, and Acocks and Howell published articles on their successes. Savory, on reading the results in *Farmer's Weekly*, and visiting Hillside in 1966, announced that "this was the answer."

Today, Hillside is clothed in native *Themeda triandra*, South Africa's desired "rooigras." Erosion and other evidence of range deterioration are on the wane. However, factors other than the rest rotation method may be instrumental here. Summer rainfall averages more than 10 inches, and may be much more generous in good years. Moreover, Hillside appears to be lightly stocked with sheep, and has only 100 head or so of cattle. It is also apparent that much care has gone into every sward of grass, and much time had been required for the veld to recover.

The second farm visited, Compassberg, is a high elevation (to over 8000 feet) tussock grassland farm owned by Louis and Phyllis Trollip. Burning, a practice scorned by Savory, is used in a seven year rotation to maintain a grass veld free of scrub. As at Hillside, there are numerous pastures, the stock is frequently moved, and the rest periods are long. Stocking rates are light by American standards and more than 30 years have been invested in recovering a severely depleted range.

Also as at Hillside, a fence-line contrast is immediately noticeable. The yellow grass of Compassberg's pastures stand in marked contrast to the gray scrub of the neighbor's veld. What's even more impressive, however, is the several additional inches of topsoil on the Compassberg side of the fence.

Compassberg, like Hillside, receives an average annual rainfall in excess of 16 inches. Hobson's farm, the third one visited, is more arid. At Compassberg, Karoo bushes often exceed the grasses and the more palatable of these are heavily nipped. The sheep and goats have to be actively managed even to merely sustain the veld in its present shape. Worry is an integral part of the management plan. Still, non-selective grazing is providing two generations with a comfortable living – if summer droughts do not come often – but it should be noted that the farm is ingeniously managed, and a large labor pool is available for fencing, herding and water maintenance.

Call it what you will – Savory Grazing, Holistic Range Management, non-selective grazing, or short duration grazing, at least some of the range management principles advocated by Savory can be made to work in high summer rainfall areas where grass and livestock are the goal of a family farm with a steady supply of cheap labor. None of the farms visited was rich in wildlife: some small antelopes such as Springbok, and in the mountains a few Rhebok; not much else. The big herds, so essential for Savory's "excited hoof action" were gone, as were the large predators. When South Africans shift to game farming they remove the livestock.

So what's the bottom line? Can Savory's HRM approach reclothe the Southwest in long lost grasses? I think not. In the winter rainfall and shrub-dominated Mojave and western Sonoran deserts, it will certainly fail – as all earlier attempts at sustained yield management have. The widely fluctuating and increasing droughts that have determined our recent evolutionary history are against Savory.

Unlike Africa, the American Southwest has been without large herbivores for close to 10,000 years. The relatively few large mammals that survived the Pleistocene were, of necessity, browsers and forb feeders such as Mule Deer and White-tailed Deer. The only hoofed animal of the Southwest plains to make the recent transition to an increasingly arid environment was the Pronghorn – an animal that subsists on weeds and shrubs. The newly-arrived Javelina (from Mexico) doesn't even use grass for cover. In the Southwest, only the Elk, a cool-climate animal restricted in this region to upper elevations, depends largely on grasses for sustenance.

Even before the advent of Western man and his livestock, the grasslands of Arizona were relics of a wetter time and unable to sustain large herbivores. Bison were confined to the less arid and more stable (Savory would say "non-brittle") grasslands east of the Rio Grande. There was no time for co-evolutionary relationships to develop between plants and animals such as exist in Africa. The change to arid ("brittle") environments has been too recent to allow for the evolution of large, grazing mammals like the Gemsbok and Eland that can subsist without free water, roam randomly, and thus not concentrate in select habitats. Co-evolutionary relationships such as those that allow the Kudu and other wildlife to subsist on the sugary exudings on mopane tree leaves without damaging the plants, are unknown in the American Southwest. Our semi-desert environments couldn't provide enough yearly growth of grasses to feed sustainable populations of grazing animals, much less be dependent upon them. Conversely, it was the residual grasses of former years that provided cover for Pronghorn fawns and Mearns' and Scaled Quails. Removal of this grass cover by introduced livestock resulted in increased evaporation rates and an irreversible conversion of grassland to shrublands and desert. If, as Savory post-

continued on page 30

Photo by David Brown

Burchell's Zebras in Kruger National Park, South Africa, probably the finest game park in the world. As with all South African game parks, no livestock are permitted.

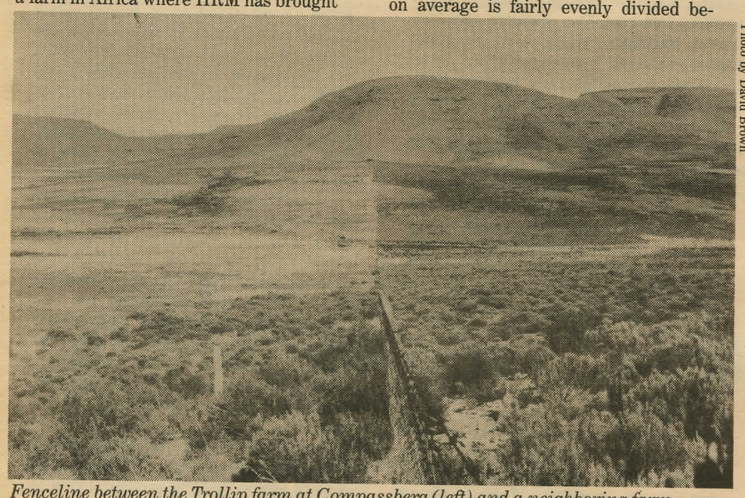


Photo by David Brown

Fenceline between the Trollip farm at Compassberg (left) and a neighboring farm. The Compassberg pasture has better grass cover and much deeper soil. It also lacks the dense population of noxious shrubs that fill the neighboring pasture. The absence of shrubs is attributed to regular burning, a practice scorned by Savory. Compassberg also has long rest periods and light stocking rates by American standards (especially by Savory's standards).

Stalking Home

BURNING

What would you do if you were out walking and suddenly came upon a wild fire licking at the trunks of trees and devouring saplings and shrubs as it slowly spread across the ground? Attempt to contain it? Run for help, notify authorities? Or, feeling adrenaline prick your senses alive, move to safety and watch it do the ancient work of ecological housecleaning?

Until this summer, I thought I knew fire. Over the years I had worked on a Forest Service fire crew, done fire ecology research in the Sierra, written poems for fire, even almost died in a fire near Lake Chelan in the eastern Cascades.

A hike up Wolf Creek on the dry side of the North Cascades showed me that fire burns deeper than my experience has revealed. I was with a student group on a week-long backpack. We had chosen a little-traveled watershed without knowing that most of it had burned only two years ago. The upper 10,000 acres were charred to timberline. For days we camped in meadows surrounded by black snags and blue wildflowers.

From the beginning, most of the students were repelled by the scarred landscape. They wanted green trees, ground without charcoal. Yet the woods were bursting with life.

Most natural ecosystems in North America depend on fire to a great degree. As we looked closer, we discovered the complex story of burning written on the land. Fire resets the vegetation to earlier stages in the pattern of successional change. Older trees are killed, opening niche space for regeneration. Soil temperatures increase as more sunlight reaches the ground. Seedling survival is enhanced. These changes foster a different species composition in post-burn communities. It was too soon after the fire for us to see much reproduction, but many old englemann spruce (*Picea englemannii)* had died. The fire had burned hot on a large scale. There was plenty of room for herbs, shrubs, and quick-growing lodgepole pines (*Pinus contorta)* to move up from stands lower down the valley.

Fires release nutrients that accumulate in fallen branches, logs, and leaf litter. Because these fuels are randomly distributed, fires do not burn evenly through a forest. This creates heterogeneous conditions for invading plants and animals. We saw just how uneven a fire burns as we explored the watershed. In some places the fire had reached the canopy, "crowned out," and incineration was complete. Where the fire had burned fitfully or not at all, there were brown and green islands of surviving vegetation. In many places it was difficult for us to determine why the flames had skipped over a patch of ground. Already a mosaic of new vegetation was intermixed with the old.

The chemistry and physical structure of soils are dramatically affected by fire. Certain hydrophobic chemicals migrate downward, which increases the ability of soil to literally "get soaked." Seeds that have lain dormant may sprout after a burn because chemical inhibitors are removed from seed coats. Intense heat also stimulates seed release from some cone-bearing trees. It is a common misconception that certain species of pine are completely dependent on fire for such release. Cones may also open on a hot day. Ten species of North American pines are considered to be highly adapted to fire. Not all of them grow in the West. Red pine (*Pinus rubra)*, pond pine (*Pinus pungens)*, and jack pine (*Pinus banksiana)* are three fire species found in eastern bioregions.

If plant communities are changed by fire, it follows that animals will also be affected. In Wolf Creek, mule deer were abundant. The rich bloom of new growth was providing highly nutritious browse two years after the fire. Mammal populations increase for varying periods of time post-fire. Herbivory patterns also change. We watched mulies eat herbs that we could not find growing in any of the unburned islands.

Insects and plant pathogens usually decrease as fire clears away the dross of accumulated biomass. As insect populations change, new species of birds move in to eat them. I saw my first female three-toed woodpecker on a blackened spruce snag in Wolf Creek. These birds follow their primary food: bark boring beetles that feed on recently burned trees. After four or five years, the woodpeckers disperse to new burns. They leave behind snag nest cavities that will serve bluebirds, nuthatches, and other birds into the future.

Three-toed woodpeckers are adapted to burned lands. They identify with snags and beetles, cannot be separated from them. Modern humans, on the other hand, struggle with fire, are alienated from it. Even as the students lived within the burn and intellectually grasped the ecological role of wildfire, they did not relish the experience. These were people who cared passionately for the earth. But the practice of burning grasslands for game, hearth-keeping in winter, has been replaced for them with supermarkets, fossil fuels, and other civilized pursuits.

It was not always so. Native dwellers were intimate with fire. They used it primarily to increase food for the animals they hunted. During pre-Anglo times in Montana, fire frequencies were two times greater than those of today. Fire was also a partner in ritual. In Europe from the 8th century on, great fire festivals marked the midpoints of the seasons until Christianity forced their abandonment. The ancient Chinese believed that fire mediated between heaven and earth. The story is found at the deepest roots of western culture: "Fire purifies all things that are brought near it, releasing them from the bonds of matter, making them meet for communion with the gods." (Sir James Frazer, *The Golden Bough)*

Loren Eisely once wrote that if there was magic on the planet, it would be found in water. Fire, too, must be a form of magic. But unlike water, we cannot even agree on where fire comes from. The Karok people from the Klamath River country say Coyote stole fire from three skookums who lived atop Mt. Shasta. The Tlingit of the northwest coast tell of Raven, before a great assembly of birds, goading Merlin into catching fire that was floating on the ocean and bringing it ashore. The Greeks believed that the Titan Prometheus stole fire from Olympus. Others say humans secured fire by mistake, that heat and light are a mixed blessing. Even Coyote acknowledges this point: "Yes, I know how the senses of smell and sight and the ability to live within the seasons, and even the sense of thinking, how all these will be lulled and lost in part of even wholly in the comfort brought by fire."

Of course, this did not stop Coyote from getting fire. . . .

How might we recall these lessons? Around the campfire our eyes still burn with dim memories. The ecosystems of North America are patient teachers. Each fire season provides another round of learning and we remember bit by bit. Ecologists are finally accepting that fires (and other disturbances) are normal processes in the native affairs of the continent. Botanist Norm Christensen of Duke University sums this up: "The bottom line message to those who must manage natural ecosystems is that the world is considerably less tidy than we thought."

This summer my students taught me how far we must go. The Wolf Creek burn taught me how to get there. Walking downvalley out of the burn, my eyes shot sparks into timber. Small spot fires flamed up.

—Ed Grumbine

Timber Management . . .

Continued from page 21

more likely to survive) if it experiences occasional population expansions. A population that does not experience occasional increases in abundance is more likely to become inbred or homozygous at many loci, thus reducing its potential to adjust to changing environmental conditions.

The object of timber management is to produce wood and pulp. Managers base rotation lengths upon economic considerations relating current and projected interest rates with tree growth rates. If a forest stand increases in net value at a rate of 4% per year, but the bank offers a return on investment of 5% per year, it is time to harvest the stand or manipulate it to increase its rate of appreciation. Timber managers must keep the stand at the highest possible growth rate to satisfy corporate stockholders (or USDA bureaucrats). Older trees, past the age of highest growth rates, and perturbations to the system that decrease net cellulose production cannot be tolerated in a commercial forest.

GOOD MANAGEMENT

Since their goals are so different, why do many wildland caretakers use the same management techniques as commercial foresters?

Commercial forest products industries sponsor much of the forestry research and education conducted by American colleges and universities. Wildlife biology and wildlife management as subjects of study generally are included within forestry programs, funded and administered in large part by forestry and agricultural interests. Because appropriate curricula usually are not offered by botany, zoology, or ecology departments, many future wildland caretakers receive their schooling in forestry and agriculture departments. They learn how to manipulate forest ecosystems, but they do not learn how forest ecosystems functioned without man's intervention. Rarely does a wildlife student's college curriculum include studying the life histories of the plants and animals he or she will be charged with conserving; instead, he or she learns how to set prescribed burns, how to measure timber volume, and how to administer hunting regulations. As a result, most wildlife biologists are poorly prepared to assume the role of caretaker of natural diversity.

Someone once said that good timber management is good wildlife management. Clearly, good timber management has profound effects on forest wildlife, but those effects do not include the long-term survival of native wildlife or the maintenance of natural diversity. On the contrary, good timber management is not wildlife management.

MOVING? SEND US YOUR NEW ADDRESS!

View from the Outhouse

LOOKING FOR LAND: THE JOURNEY BEGINS

My wife and I have always dreamed of owning a piece of land and leading a more primitive, homesteading life. We have lived in four different rustic, backwoods rental cabins with no electricity or plumbing. We gardened, kept bees, made maple syrup and practiced many other aspects of a self-sustaining lifestyle. In many ways we lived the dream, but knew that bringing this lifestyle to fruition would require our own piece of land. Now the time is right. We have filled a couple of piggy banks and are ready to search for a community and reasonably priced land ($200-$300 per acre), a place we can adopt and call home, a place to put down roots.

We are leaving a crowded and expensive Harrisville, New Hampshire, and becoming, in essence, free-agent homesteaders. Our first stop will be northern Vermont, then northern New Hampshire and certain spots in Maine and Nova Scotia. By autumn we plan to travel to northern Minnesota and out West. When winter approaches we hope to have made a decision, and perhaps by next spring to have land. But there is no rigidity in our plans and we realize how mercurial the coming months will be.

There are basic characteristics that we hope our land and new community can fulfill, such as the presence of a few like-minded people; a neighbor or two who can offer both the physical and emotional support needed by young homesteaders. We are looking for a healthy, small and somewhat remote community where people rely not only on the land for sustenance, but on each other. It is growing more difficult each year to find one of these communities with a true local economy, an economy that avoids the influence of faraway money.

We must also consider local environmental threats to the areas that interest us. No place is free from global problems like the greenhouse effect and ozone depletion, but some places are safer and healthier than others. We do not want to live near nuclear power plants (as we do now), or have Weyerhaueser as the landowner next door. We are not interested in settling within the yuppyfied grasp of large towns and cities, the kind of grasp that is currently feasting on Harrisville and much of New England.

The actual piece of land must also meet a few basic needs, including the presence of the right kinds of timber for a log home.

We plan on using only horses and hand tools; no log skidder or chainsaw. Some of my carpentry co-workers have criticized this idea because of the number of trees needed for log home building, but logs provide the exterior siding, insulation and interior paneling all in one, and therefore are ecologically wiser than buying milled siding and paneling (or sheetrock) and factory produced insulation.

The land must also include southern exposure, and a reliable source of water for drinking, bathing, watering gardens, and perhaps even a small pond for harvesting ice. We plan on gardening to produce most of our food, so we will look for good soil, but it is not critical since healthy soil can be built in a few years.

We are beginning our search with a strong commitment to low-impact living, living in a more direct and respectful relationship with nature. That is impossible when working long hours at a specialized job, relying on our highly centralized economy and its destructive production of such items as electricity, processed food full of pesticides and sugar, centralized water full of chlorine and flouride, and so on. There is simply too much evidence that shows our consuming middle-class lifestyles leading not only to a moral and spiritual dead end, but a physical dead end for the entire planet. In short, we want to disconnect ourselves as much as possible from the destructive elements of our society.

During our search we will ask questions in general stores, stay with people for several days, and help out while having a picture of each community painted for us, however limited. We will ask about old homesteads for sale, perhaps one with a good cellar hole, a meadow, old apple trees. We would rather recycle an old site than create a new one. We will talk, listen and travel, and after many months, we hope to hand somebody a stack of $100 bills so frugally saved, in exchange for the land we have been waiting for.

—Robert Streeter

An Earth First! Proposal for a Greater Yellowstone Wilderness Preserve

by Philip R Knight

Imagine a wild land ribbed with snowy mountain ranges, veined with free-flowing rivers, cradling vast blue lakes, populated by endlessly roaming wildlife. Alaska? Canada? South America? No. Yellowstone.

NATURAL HISTORY

The Greater Yellowstone Ecosystem (GYE), encompassing Yellowstone and Grand Teton National Parks, parts of seven National Forests, and various Bureau of Land Management and private lands, is one of the largest nearly-intact ecosystems in the temperate regions of Earth. Within the GYE are many mountain ranges, including the Absarokas, Crazies, Beartooths, Bridgers, Tobacco Roots, Gravelly-Snowcrest, Centennials, Madison, Gallatin, Tetons, Gros Ventres, Salt Rivers, Snake Rivers, and Wind Rivers. An incredible array of wildlife inhabits the GYE, including Grizzly and Black Bear, Elk, Moose, Mule and White-tailed Deer, Pronghorn, Bison, Mountain Lion, Badger, Wolverine, Fisher, Pine Marten, and Red and Gray Fox. Trumpeter Swan, White Pelican, Ruddy Duck, Cinnamon Teal, Canvasback, Barrow's Goldeneye, Harlequin Duck, Common Loon, River Otter, Beaver, Cutthroat Trout and Arctic Grayling populate the multitudinous lakes and rivers. Bald and Golden Eagles, Peregrine Falcon, and Osprey ride the mountain winds.

Many other more obscure but no less fascinating creatures call Yellowstone home. Prairie Voles, Masked Shrews, Uinta Chipmunks and Pikas bring vitality to alpine and lowland meadows. Northern Flying Squirrels glide the dark forests, ever heedful of prowling Great Gray Owls. Muskrats trim the lush riparian zones, and Least Weasels hunt mice, squirrels and voles. Cold-blooded inhabitants (ectotherms) include the Boreal Chorus Frog, Sagebrush Lizard, Prairie Rattler, and Gopher Snake, which impersonates and eats its venomous cousin.

In addition to the aquatic birds, avian life includes the Merlin, Gyrfalcon, Northern Pygmy Owl, Calliope Hummingbird, Olive-sided Flycatcher, Lazuli Bunting, Brewer's Sparrow, and Bobolink. Plants are even more varied: Fringed Gentian, Pink Monkey-flower, Shootingstar, Monks-hood, Alpine Forget-me-not, Bearberry Honeysuckle, Balsam-root; even the Pricklypear Cactus is found in Yellowstone. One of the rarer species is Ross Bentgrass, which only grows in alkali soil near hot springs.

Habitat types range from the alpine zone of the high peaks, represented especially well by the vast expanses of alpine tundra in the Absaroka and Beartooth ranges, to the riparian and aquatic communities of the lakes and rivers. In between are found the spruce-fir subalpine forest, Quaking Aspen groves, vast Lodgepole Pine forests, Douglas-fir stands, and rolling sagebrush-grass hillsides.

Yellowstone's biotic communities exist in precarious harmony with powerful geological forces. The famed geysers of Yellowstone Park are the result of a long history of volcanism. Most of the Park lies within the world's largest volcanic crater, or caldera, which is still active. Seething and bubbling unusually close to Earth's surface is a huge mass of hot liquid magma. Every 600,000 years or so, pressure and heat build to a critical point and Yellowstone erupts in an explosion compared to which Mt. St. Helens' eruption paled. The Yellowstone Caldera is nearly 50 miles across, with the Madison Plateau and the Washburn, Gallatin, and Absaroka Ranges forming the rims, and Lake Yellowstone occupying the center. Entire plateaus and mountain ranges are composed of volcanic debris spewed from this immense volcano.

Yellowstone also boasts the most extensive fossil forest on Earth, a result of volcanic eruptions burying ancient forests. On Specimen Ridge, over 25 layers of fossil forest are exposed, one atop the other. In the Gallatin Petrified Forest and elsewhere, huge fossil stumps jut from the ground, tangible ghosts of an age of fire.

Ice has also played a leading role in Yellowstone's natural history. Time and again, massive glaciers scraped over the land, sculpting the lava flows into the rugged topography of today. Imagine the turmoil when the caldera erupted during an ice age! Remnants of the great ice sheets still linger in hidden corners of the ranges, especially in the high, wild Wind River Range, in the heart of which lie the largest glaciers in the Lower 48 states.

While the glaciers are mostly gone, for now at least, the caldera still heaves and groans. Geologists estimate that it has been 600,000 years since the last major eruption. . . . The entire region is still very unstable. In 1959, an earthquake caused a landslide which buried a campground in the Madison Canyon, forming a huge natural dam which backed up the Madison River and produced Quake Lake. Parts of Yellowstone Park are rising nearly an inch per year.

HUMAN IMPACTS

For millions of years, this dynamic equilibrium of fire and ice, life and death shaped Yellowstone. Enter Western man. In the 180 years European man has known of Yellowstone, great changes have been wrought. The Gray Wolf has been extirpated, and the Grizzly Bear, Beaver, and Lynx nearly so. Huge tracts of virgin forest have been leveled. Rivers have been dammed and cities built in the lush valleys.

Large tracts of Yellowstone, especially in the high mountains, remain essentially wild; but even these last wild areas are under siege. Nearly every National Forest in the GYE plans to increase its timber harvest, which means more roads and clearcuts in roadless areas. Almost all non-Wilderness lands on the Forests are leased for mineral exploration (though this program has suffered a major blow on the Gallatin, where all oil and gas leases have been declared void pending the completion of a new EIS). Subdivisions and resort development are running rampant. Powerboats befoul crystalline waters. Aircraft drone across the skies, sometimes swooping low to harass wildlife. Slob hunters poach wildlife from ever more numerous roads. Even the designated Wilderness Areas are not inviolate: Increasing numbers of recreationists turn trails into ruts, push shy wildlife into deeper pockets, and litter campsites. Hoofed locusts (domestic sheep) trample vegetation and spread disease to wildlife.

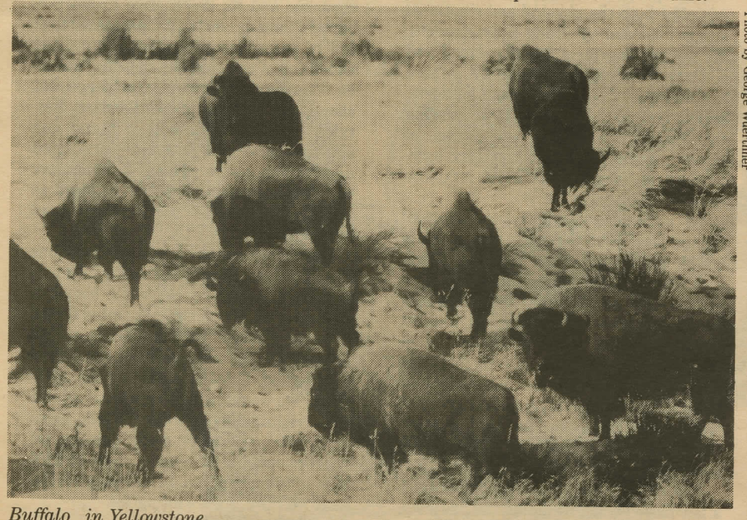
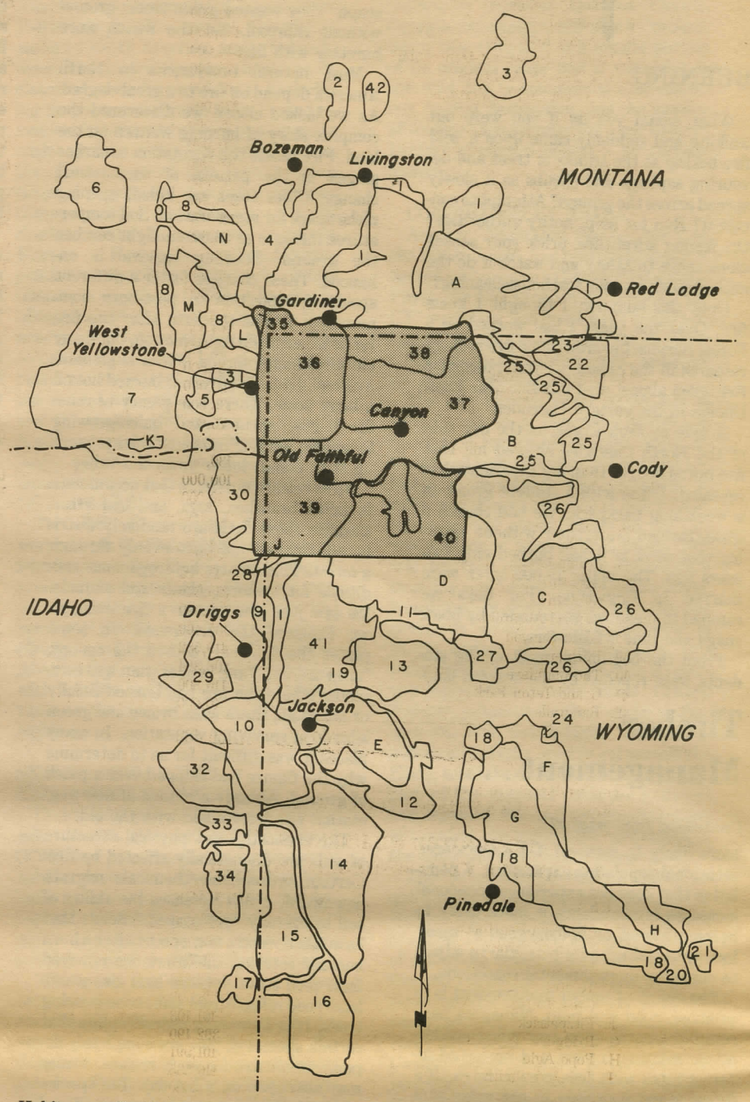


Photo by George Wuerthner

Buffalo in Yellowstone.



Habitat effectiveness is suffering throughout the ecosystem.

The National Park Service (NPS), entrusted with caring for the National Parks within the GYE, is instead pursuing policies which ensure the continued degradation of these wonderlands. In Yellowstone, the infamous Fishing Bridge development, thorn in the paw of the Great Bear, remains open to industrial tourism years after the NPS promised to close it. The NPS now wants to leave Fishing Bridge open and build yet *another* development on Yellowstone Lake's north shore, even though the hideous Grant Village complex was built to replace Fishing Bridge facilities. The NPS also wants to expand winter recreation facilities in Yellowstone, including new inns and tourist cabins at Old Faithful and Canyon Village to accommodate snowmobilers. The peace of winter on the high plateaus is being shattered by the incessant whine of more and more snow machines. The NPS was recently forced to admit that hundreds of thousands of gallons of raw sewage were dumped into the Yellowstone River during shut-downs of sewage treatment plants at Grant Village and Fishing Bridge. The bed of Jackson Lake's Moran Bay in Grand Teton National Park is being mined for fill to rebuild the dam at the lake's outlet.

The situation on the National Forests is far worse. Ski Yellowstone, a massive resort proposed for Mt Hebgen on the Gallatin National Forest, has suffered setbacks but is not dead. Sheep are devouring fragile meadows in critical Griz habitat on the Gallatin, Targhee, and other Forests. Clearcuts on the Targhee extend right to the Yellowstone Park boundary. On the Custer NF, Phillips Petroleum has proposed drilling for oil on fragile Line Creek Plateau. Drill rigs would be driven over the alpine tundra. A massive cyanide-leach gold mine is currently being developed at Jardine, three miles from Yellowstone Park's northern border. Platinum mines are planned for the Stillwater Complex, a geologic feature on the northern fringe of the Absaroka-Beartooth Wilderness.

The six current and proposed National Forest plans for the ecosystem expect that GYE Forests will continue to provide increasing levels of recreation, oil & gas, forage, timber, etc. This will only occur at a loss to biological integrity and to the taxpayer; for instance, $22 million would be lost annually to below-cost timber sales. On the Gallatin Forest, inventoried road mileage would double in 30 years, and a 210 million board foot per decade timber harvest would be mandated. Several of the six Forest plans are under appeal, but none of the appeals are even approaching resolution. In fact, appeals have been pending for up to two and a half years while the FS continues to operate according to the appealed plans!

In Paradise Valley on Yellowstone's northern border, the Church Universal and Triumphant (CUT), survivalists and pro-Reaganites, has established headquarters. CUT wants to build a community for several thousand people on some of the best winter wildlife range in the GYE. Each summer, CUT draws thousands of adherents to a two-week conference on upper Mol Heron Creek, in the midst of Situation 1 Grizzly habitat.

On the Red Rock Lakes National Wildlife Refuge in Montana, vital link in the continental flyway system for migratory waterfowl, management is being pressured to increase the numbers of cattle grazed on the Refuge.

The political climate in Wyoming, within which lies much of the GYE, reeks. The Wyoming Congressional delegation (Alan Simpson, Dick Cheney, Malcom Wallop) has halted preparation of an EIS on reintroduction of Gray Wolves to Yellowstone Park. The influential Wyoming delegation's obstructionist policies on environmental issues are also illustrated by their blockade of the NPS plans to close the Fishing Bridge development. Politics in Idaho and Montana are nearly as sordid.

Even seemingly remote events are having an increasingly noticeable effect on the GYE. Songbirds such as the Warbling Vireo, Swainson's Thrush and Western Tanager are declining due to deforestation of their winter habitat in the tropics of South and Central America. Perhaps even more insidious, the GYE is in the grip of

EARTH FIRST! YELLOWSTONE WILDERNESS PROPOSAL

AREA	ACREAGE
1. Absaroka-Beartooth Additions	350,000
2. Bridger Mts	45,400
3. Crazy Mts	139,000
4. Gallatin Range*	227,000
5. Lionhead	49,800
6. Tobacco Root Mts	150,000
7. Gravelly-Snowcrest-Centennial*	644,000
8. Lee Metcalf Additions*	175,240
9. Jedediah Smith Additions	92,000
10. Palisades	275,000
11. Togwotee (Teton Addition)	25,000
12. Gros Ventre Additions	271,000
13. Mt Leidy*	160,000
14. Grayback-Wyoming Range*	400,000
15. Salt River Range*	290,000
16. Commisary Ridge*	200,000
17. Gannet-Spring Creek	66,000
18. Bridger Additions	214,000
19. Munger Mt	12,900
20. Popo Agie Additions	56,000
21. Little Popo Agie	25,000
22. Deep Lake	140,000
23. Wyoming High Lakes	25,300
24. Fitzpatrick Additions	31,500
25. North Absaroka Additions	150,000
26. Washakie Additions	235,000
27. Du Noir*	75,000
28. Winegar Hole Addition	6000
29. Garnes Mt	130,000
30. Yellowstone West**	100,000
31. Hebgen**	40,000
32. Bear Creek	105,000
33. Caribou City	90,000
34. Stump Creek, Yellowstone Park	104,000
35. Gallatin West	11,800
36. Gallatin	316,876
37. Central-Absaroka	723,000
38. Black Canyon	137,400
39. Bechler	419,582
40. Thoroughfare	406,384
41. Grand Teton Park	115,800
42. Bangtails	40,000
TOTAL	7,166,482

*Some wilderness recovery is necessary.
**Entire proposal is a Wilderness Recovery Area.

DESIGNATED WILDERNESS IN GREATER YELLOWSTONE ECOSYSTEM

AREA	ACREAGE
A. Absaroka-Beartooth	920,000
B. North Absaroka	351,104
C. Washakie	686,584
D. Teton	557,312
E. Gros Ventre	228,500
F. Fitzpatrick	191,103
G. Bridger	392,190
H. Popo Agie	101,991
I. Jedediah Smith	116,535
J. Winegar Hole	14,000
K. Red Rock Lakes, Lee Metcalf	32,350
L. Monument Mt	33,000
M. Taylor-Hilgard	141,000
N. Spanish Peaks	76,000
O. Bear Trap (BLM)	6000
TOTAL	3,847,669

the continent-wide drought, likely attributable to global weather changes wrought by the greenhouse effect. Drought-related fires have burned nearly 200,000 acres in Yellowstone Park this year as of August but have been artificially controlled on the surrounding National Forests and private lands.

EARTH FIRST! ALTERNATIVE

As an alternative to destructive, commodity-oriented management of the GYE, Earth First! proposes a vast Wilderness preserve, totaling over 11 million acres in Idaho, Wyoming, and Montana, with Yellowstone National Park at its core. Earth First! recognizes the failure of federal management to protect the GYE. The ecosystem is divided by political boundaries, and as a result Yellowstone's natural communities are being fragmented. It is time to abolish artificial political boundaries so that natural ecosystems may be preserved and restored, and EF! proposes beginning with Yellowstone.

One of the primary functions of EF! is the development of visionary Wilderness proposals. Most of the proposals developed to date have been presented on a state-wide basis. EF! has presented proposals for Idaho, Wyoming, and Montana. The Yellowstone proposal incorporates portions of these state proposals in an effort to protect an ecosystem preserve.

Within the Greater Yellowstone Ecosystem are 16 federal Wilderness Areas comprising nearly 4 million acres. EF! proposes an additional 7.2 million acres of Wilderness in the GYE. Wyoming has already been stuck with a poor "Wilderness Bill," passed in 1984 by Congress. Neither Montana nor Idaho have passed a post-RARE II wilderness bill, but horrendous bills for both states have been drafted. Pat Williams' Montana Bill HR 2090 has already passed the House. If approved by the Senate, it would protect a paltry 63,500 acres in the GYE, and leave 258,000 acres in Land Consolidation Study status. All other unprotected roadless lands in the GYE would be open to degradation. Senator Melcher may soon introduce a similarly horrible bill. A recently drafted Idaho wilderness bill appears to have died an early death, but we can expect to see more wilderness destruction proposals from the Idaho delegation.

A Wilderness proposal should determine the limits of human use and development. The GYE is already developed beyond what the natural ecosystem can withstand. EF! demands a *moratorium on further development in the GYE*, and proposes the following constraints on human activity:

I. Developments to be removed and rehabilitated:

A. All Yellowstone Park developments except Old Faithful Lodge, Lake Hotel, Roosevelt Lodge and Mammoth Hot Springs.

B. Hebgen Dam on the Madison River (Madison returned to its natural channel).

C. Jackson Lake Dam (Jackson Lake returned to its original shoreline).

II. Transportation:

A. No private vehicles in Yellowstone Park.

B. No trucking on Rt 191 (Gallatin Canyon Rd)

C. Non-polluting mass transit for Yellowstone Park. Visitors encouraged to walk, ski, cycle, or ride horse-drawn wagons.

D. No ORV use in GYE, including snowmobiles.

E. No powerboats on Yellowstone, Shoshone, Lewis, Jackson, or Jenny Lakes

F. All aircraft limited to above 35,000 feet elevation.

III. Forestry

A. Lightning-caused fires allowed to burn.

B. Insect infestations allowed to run their course.

C. All National Forest lands limited to the following forestry practices: horse logging, selective, sustained-yield, uneven-aged cuts, locally owned and operated milling operations, producing mainly small post & pole and firewood. NO CLEARCUTS! These low-impact forestry operations would, of course, be allowed only in currently developed and roaded areas.

IV. Other measures

A. There are over 400,000 acres of privately owned land within the Gallatin National Forest alone, mostly intermingled with public land in checkerboard fashion. These inholdings must be purchased outright by the federal government, or put in a permanent private land conservation trust, to prevent developments.

B. All livestock grazing and predator control practices on public lands in the GYE must cease.

C. All mineral leases must be declared invalid and withdrawn.

D. Sensitive backcountry areas must be temporarily or permanently closed to human use to eliminate stress on wildlife during critical times such as weight recovery or birthing periods.

E. Reintroductions of all extirpated species and restoration of all depleted wildlife populations must proceed. This will include Gray Wolf, Beaver, Lynx, Fisher, Mountain Lion, and Black-footed Ferret.

F. All hunting of predators, including Mountain Lion and Black Bear, must be banned. Hunting of ungulates will be limited to primitive weapons: bow, spear, sling, atlatl, etc. Preference will be given to hunting of *domestic* ungulates — cows and sheep.

G. Ultimately, all federal lands in the GYE should be managed according to the Biocentric Proposal for the National Forests outlined in the Earth First! Citizen's Primer to Stop Forest Service Destruction!

WILDERNESS RECOVERY/ BIG WILDERNESS

I. Wilderness Recovery Areas: Many parts of the GYE have been degraded yet retain substantial wilderness values. These areas will be subject to wilderness recovery, whereby they are rehabilitated to pre-disturbance conditions. Wilderness Recovery Areas in the GYE should include:

A. Gallatin Range: Many north and west side drainages have been heavily logged. Gallatin WRAs will include Squaw, Portal, Swan Hyalite, and Sourdough Creeks.

B. Yellowstone West: 100,000 acres in Idaho adjacent to Yellowstone Park, severely degraded by logging.

C. Hebgen Lake: Removal of dam will open a large area to wilderness recovery.

D. Lulu Pass/Stillwater: North of Cooke City, MT, extensively mined and roaded. Land reclamation and a ban on motorized vehicles needed.

E. Du Noir: 75,000 acres in Wyoming adjacent to Washakie Wilderness — prime Elk habitat. Logging and mineral exploration have impacted fringes; up to 65,000 acres remain intact.

F. Bangtail Mountains: Rolling high country east of the Bridger Range, severely logged and roaded. Recovery would provide critical link between Bridger and Crazy Mountains.

G. Sunlight Basin: Overgrazing, irresponsible logging have impacted this area. Heavily used by Grizzlies, major Elk migration route. Clark Fork River, finest trout fishery in Wyoming, proposed for Wild and Scenic designation, being degraded by "recreational" gold dredging.

H. Corridors: The GYE is becoming isolated from other natural ecosystems. Herein lies one of the greatest threats to the GYE: The potential for natural replenishment of native life forms is being lost. Therefore, corridors of wilderness should be established linking the GYE with the Northern Continental Divide Ecosystem (Glacier/Bob Marshall Ecosystem), the Selway/Bitterroot (Central Idaho Wilderness Complex), the Big Open in eastern Montana, and beyond. Corridors should also link the disjointed pieces within the GYE, for instance Wind River to Washakie and Crazy Mts to Beartooths.

II. Big Wilderness: Big wilderness still exists in the GYE. To assure its continued existence, Wilderness designation is necessary for the unprotected portions of *de facto* wildernesses. The four largest are:

A. South Absaroka Complex: 2,100,000 acres

B. Absaroka-Beartooth: 1,447,000 acres

C. Central Yellowstone-North Absaroka*: 1,224,000 acres

D. Wind River: 1,031,300 acres

*Close and rehabilitate Tower-Canyon-Fishing Bridge road.

Research for this article was partially funded by the Earth First! Journal *Research Fund. To contribute to the Fund, send checks, earmarked to the Research Fund, to the EF! Foundation, POB 50681, Tucson, AZ 85703.*

CALL TO ACTION

Time is running out. We are losing Yellowstone. Development is creeping like a cancer into every corner of the ecosystem, robbing Yellowstone of its genetic vitality. Get involved NOW in the fight to keep Yellowstone intact! Contact Yellowstone EF! (address in Directory) for specific issues, or send much-needed dollars. We cannot save Yellowstone without YOU.

HOW SOON IS NOW?

by Philip R Knight © 1988

Although much as been written and said about the Environmental Crisis, one of the major unresolved questions surrounding this subject remains: what is the level of crisis? Is it something we face in the misty future, or is it here now?

In the September 1988 issue of *Backpacker* magazine, Steve Rauh of the Sierra Club put it thus: "The main philosophical difference between Earth First! and the mainstream groups is that Earth First! contends that we ... are in a crisis situation *now*. While I respect that, I just don't happen to agree." Mr. Rauh has made an important observation here. If he is correct, the entire mainstream environmental movement is operating with a very dangerous attitude.

I say we should assume that the Environmental Crisis is upon us *now*. Even if we are wrong, which becomes more unlikely by the minute, we should err on the side of Earth. Assuming that the crisis will wait is akin to Reagan's "let's just study it some more" attitude toward acid rain.

Folks, the crisis has arrived. If you need proof, just open yourselves to the obvious messages Earth is sending.

Perhaps the most dramatic example is the "medical waste" which has been washing up on the shores of the Eastern US, closing beaches during the hottest summer on record. Ocean hurls back the rubbish of human disease to send a message: I AM SICK. Quit dumping your crap in my waters! Quit killing my creatures!

Another example: Nationwide drought. This drought, a classic symptom of global climatic change due to the greenhouse effect, is especially evident here in Yellowstone country. With the "normal" fire season just beginning, nearly 10% of Yellowstone Park has already burned! We read daily of new fires raging in the bone-dry forests, fanned by hot southern winds. The Park Service is running haggard trying to keep up with the fire, closing roads, shuttling fire crews around to protect developments, dealing with the hordes of tourists who demand to see Yellowstone come hell or low water. From the town of West Yellowstone it appears that the entire Park is aflame. Ominous clouds of smoke rise like thunderheads above the firestorms in the interior. In Bozeman, 40 miles from the fires, the haze is thick and the smell of burning hangs in the heavy evening air. And the rain refuses to fall.

Earth is fighting back by hitting us where it hurts: Vacationland. The beaches are closed. The nation's most famous National Park is ablaze. But how many are really listening?

All life depends, directly or indirectly, on the sea, atmosphere, and soil. Ailing Oceans. Massive Fires: Climatological Mayhem. I predict the next symptom will relate to the soil, to the good earth. The drought will bring huge dust storms, like the dust bowls of the 1930s but more severe, leaving the heartland barren. Already I have seen dust storms in Montana and Idaho, as the irreplaceable topsoil, gift of the glaciers, is stripped from the land.

Listen to Gaia! She screams in the heat of fever, and *we* are the disease. Now is not the time for career, for children, for a life of opulence and pleasure. Now is the time to change our nasty habits if we are to avoid environmental armageddon!

STOCKMAN

by Mark London Williams

The wind whipsawed down the canyon, seemingly banging two directions at once, low and fast, making a whistling, hissing noise as it galloped through the sagebrush and cheatgrass, the kind of wind his uncle used to say "would drive the shit right back up a coyote's ass."

There was a time when Ralph Cumberland might smile at a thought like that. What else was it his uncle said? "There are two kinds of men, and you don't want to be the other kind." He never really knew what the hell the other kind was. Was he one now? He looked down at the drops of blood around the cuffs of his jeans. Probably so.

He thought he heard yelling – more like yelping, really – and jumped, imagining Elizabeth Cody somewhere inside the house, in her mother's arms, wondering if the terrible screaming was about to begin. But no, the screaming came from the snap! and spark of memory racing through his cells, and he knew the awful howling issued from those long-ago coyote pups, ones he'd hunted out on search-and-destroy missions, and he saw himself as a boy by his uncle's side, and later as a man, sealing off their dens and lighting fire to them.

Is that a siren? he wondered suddenly, or that damn devil's wind…? It would be like Margaret to call the police right away – but would Jedidiah be so fast in getting out here? He's one of the boys, he wouldn't just take a woman's word that one of the most feared ranchers in the valley…

But then, Margaret was married to one of Jed's cousins, first.

And then he was back with the coyot's, remembering a little bugger who'd clawed his way out just enough to get his head free, wailing in pain, and he still recalled the pup's eyes were literally on fire, burning, crackling right there in front of him and somewhere behind him another man laughed…

Turning, Ralph found himself still alone on the porch.

And then found himself in the doorframe of the bathroom, in the house, watching his stepdaughter climb out of the shower, watching her dry herself, knowing he was watching, that he'd looked before, knowing what he must be thinking…

And instead of covering up, letting her towel drop right where she stood, exposed, her breasts, her belly…

Stop, she was telling him. No. Get the hell out of here.

Standing there. This is what I look like, she said. See? This is my body. This is how I am. Me. Now leave. Shut the door and never look at me that way again. I don't care if you're my real father or not.

And who was she to tell him to get out, anyway? As if a man could live with himself after any sort of retreat. As if we weren't all just a pecker's shake away from ruination, *defeat*, at all times. As if anything on this earth was *easy*. Or kind.

Kind. There are two kinds of men.

The blood on his cuffs brought him back to a time in his previous life, a life which had ended just a few minutes ago, when he might have been the first kind of man, when he was at ease with necessary violence. Like that winter when Upstart Creek flooded and he'd had to move his cows to higher ground, briefly, closer to the timberline, then got stuck up there himself, needing to camp for the night, only to be ripped out of sleep by the bovine shrieks of a calf getting its head torn off by a grizzly that'd clambered down out of the woods looking for a post hibernation snack. He'd shot her at least five times before she fell.

He'd gotten blood on himself that time, too.

Then, something bizarre happened to him: he suddenly questioned what he'd done.

Standing, looking down at the bear's body, he thought what a pain in the ass this was just to raise up some steaks that some city-dweller was gonna order in an overpriced restaurant while hoping to fuck his dinner companion. *This is too much work for hamburger.*

Thankfully, the moment passed.

Besides, he wasn't the kind of man to give up. No, sir.

He'd had to finagle congressmen and judges through the years, help buy out his two senators – all the usual paper-pushing crap it disgusted him even to consider, just to keep the place afloat. But what he liked best was outsmarting the land, whipping it, kicking its butt to the tune of the biggest herd north of the river. There was victory in that. Winning.

One time he'd even convinced Margaret to come out and check trap lines with him – back after a couple of dry winters when once again, he'd started losing too many head to predators, the elements. He found a young puma in one set of metal teeth, about a mile from his place here. It was still breathing, struggling, and seemed to lock eyes with him as he stood over it. (And what the hell was it with animals' eyes? He thought of the burning coyot' pup and shuddered.) The puma stared at him, waiting for something, apparently past any pain that may've come from chewing halfway through his rear leg, and for some reason, instead of shooting the thing, Ralph Cumberland decided to finish it off with his knife. Straight across the throat, gripped from behind the skull, and the lion seemed almost at peace as it died. But now, thinking back on that feline's death-grin, it occurred to him that nothing had been going right since then.

Starting that night. Margaret refused to come to him in bed. She didn't feel right. She said. Maybe later. She said. You're not bothered by that ol' cat, are you? No, she said, but you know, I got some of its blood on my shoes there.

A small price to pay, he reminded her, for the high style in which you are kept. Things gotta die, sweetheart, for you to live.

But isn't there such a thing, she asked, as *too much* death?

That, he smiled, is what happens to my cows. Now get in these sheets.

So she did, but there was a coldness there. He imagined her staring up at the ceiling the whole time, counting the sparkles glinting in the speckled plaster.

The wind slapped an errant pebble hard against his cheek, and for just a moment, he thought he'd been shot, thought maybe the rifle in his hands had gone off prematurely…

Now, he didn't want to fuck *that* up, too.

There were tears in his eyes from the dust surrounding him and he thought how dry the earth had become in the last few years, about how his life had become a medley of blistering winds and loss.

What was it that made him do what he did to Elizabeth Cody? Sometimes he liked to think of living beings as machines, behaving in ways that were finally, ultimately predictable. Thinking of himself now in this way, he imagined that inside him a switch had snapped suddenly, brutally, off.

Or, perhaps, another kind of switch never flicked on to begin with.

Jed's siren was much closer now, practically at the front gate to his spread.

Ralph stood up.

There'd be a trial, though Jed would try to avoid it. Margaret – and Elizabeth – would probably insist.

The people hereabouts would wonder how he could do such a thing. She was, after all, his stepdaughter.

Ralph finally allowed himself a smile – tiny, mocking – when thinking of his neighbors' outrage, a smile that quickly faded when the coyot' pup's burning eyes blinked back at him through time.

He scuffed uneasily at the drying red stains on his pants, then swung the rifle around 'til it stared him in the face.

There were, after all, just two kinds of men.

And in that space of time before the report of his rifle mixed in with Jedidiah's siren, there was another sound, a voice, swirling along with the wind. A high, mournful wail.

But in his last seconds, Ralph Cumberland couldn't tell if the cry belonged to a woman … or a coyote.

Tallahassee Creek — *by Margaret Onderdonk*

Earth First! — The Last Detail

by Tom Stoddard

I appreciate the Earth First! "In Case of Death, Feed Me To The Bears" card, and I'm not badly disposed toward my essay, "Bury Me Not In a Lead Lined Coffin." But neither addresses the practical matter of how to get one's body from its place of demise to its place of appropriate rot. I had hoped to stimulate interest in the subject at our Grand Canyon RRR, but noting the young age of most attendees, most of whom are undoubtedly still convinced of their own immortality, I decided to instead compose this note for *Earth First!* to find out if others are interested in forming a burial organization committed to ecologically appropriate burials.

There are, of course, many practical reasons for appropriate burial, not the least of which is to avoid the funeral directors' clutches. In June I helped my step-mother make preparations to bury my father. It was gruesome. First, the mortician convinced my step-mother of the "sanitary need" to pump dad full of formaldehyde, at a cost of $110. Second, "The Funeral Director" sold step-mother another $2,200 of goods and services even though we had an open-air family-only service and the grave was prepaid. And, third, for this selling job ("Funeral Director's coordination of services") they charged $468.

The money could have been better used for conservation causes. The entire burial process is an affront to every tenet of sound ecology. The burial plot is the most damaging aspect. Assuming a four- by eight-foot plot or 32 square feet per person, and taking the world's five billion persons, we would need 3,674,000 acres of land to bury them all (roughly the size of Connecticut or Wales).

There are several ways to appropriately melt back into the biosphere. These include: depositing the body in the ocean, weighted with rocks, at least 20 miles offshore; placing the body six feet up in a tree or strong bush in American Indian style; merely laying the body on the Earth; or burying it in a grave no more than three feet deep. None of these methods would involve serious preparation, and the latter three would be carried out in wilderness with no markings to identify the location or the body. We could put a small tag on the skull identifying the remains as a natural burial, thus preventing confusion with persons whose remains are there as a result of accident or foul play. Cremation is an acceptable method of returning the body to the biosphere. I object to my body being disposed of by that method because burning uses resources and pollutes the air.

To dispose of assigned bodies swiftly, there would be a designated burial crew in areas where Earth First! is active. They would receive the body from the heirs or assigns and take it to its resting place. Since this would be a major task and on an irregular basis, the burial crew would be paid well. They would have an appropriate name, like Earth Planters, or Body Bearers, or Final Transit.

Some descendents might want a service, wake, bash or other farewell gesture, and they could arrange whatever fits their need prior to the body's removal to its resting place. They would arrange the gesture, and once concluded, the body would be handed over to Final Transit members.

There are a few technical and legal problems that need ironing out. How do you get a body released to a third party? Are there legal requirements about how the body is disposed of? What are the penalties for breaking the law? Are licenses required for burying bodies? Should the operation be done to comply with the law (written, of course, by the funeral industry), or to protest the law? Will families comply with the descendents' wishes, or defy them?

We'd like others' thoughts on natural burial. Would you contribute time, money or effort to such a cause? We need lawyers, morticians, and funeral directors to speak to the subject. Though I'll not organize the Final Transit group, I am willing to coordinate and collect information on the subject and send copies to the *Earth First! Journal*, and to contribute $500 to get a natural burial fund off the ground.

Tom Stoddard, a regular writer for our Journal, can be contacted at POB 15, San Anselmo, CA 94960.

Concurrent with publication of this article, Tom has donated $500 to Earth First! Foundation to be spent on the costs of developing and organizing an EF! Burial Society. Please apply to the Foundation.

ARMED WITH VISIONS

Poetry and artwork should be sent to Art Goodtimes, Box 1008, Telluride CO 81435, although you should know that we are several years worth of visions in arrears and only the indispensably exquisite will jump ahead of the long line.

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Choku-ochi

-from *Blue Flowered Lettuce* (1987)

Small Douglas fir
no bigger around than
my forearm
lip of the gorge

Hold on!
I can look over the edge
standing on moss covered
undercut rock

Hundred feet down
tumbling waters
bend out as far as
I dare

Crane neck
up and out
rewarded now for the risk!
water seems to fall
right from the sky

Choku-ochi –
straight falling
Japanese have ten distinct
ways
to describe falling
water
Dolores says

They know
how to look
at waterfalls
the secret in the rocks
that sculpt the
falling water

Michael Adams
Eldorado Springs

THE FUTURE OF DEMOCRACY

-from *Drawknife* (1985)

If
our democracy
is to survive
our greed
must die
for lack
of a second.

Doc Dachtler
Grass Valley

EARTH FIRST CHANT

(-inspired by Dave Foreman's speech at the 1987RRR)

Dream back the Buffalo; Abundance to Give.
Lay our Lives Down for Life on this Earth.

Dream back the Eagle; Illuminate the Dawn.
Lay our Lives Down for Life on this Earth.

Home of the Shadows, Mirror of Souls.
Lay our Lives Down for Life on this Earth.

Black-footed Ferret, Trickster and Guide.
Lay our Lives Down for Life on this Earth.

Dream back the Predator; Say Yes to Life.
Lay our Lives Down for Life on this Earth.

Power of the Possible, Awaken our Might.
Lay our Lives Down for Life on this Earth.

June Fulme
Julien Puzey
Dolores LaChapelle
Silverton

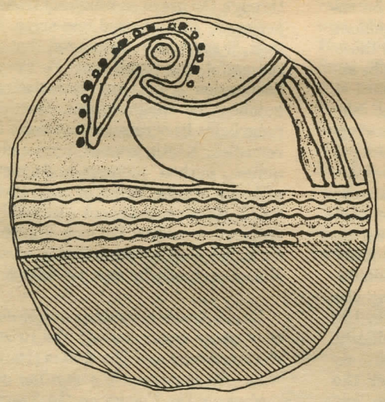
TWO SERMONS

-from A Few for Lew

Consider the weeds in the garden:
no one uses them, or wants them,
but they're flourishing!

Consider the blue chicory
and rejoice: it flowers
in gravel along railroad tracks!

Bill Deemer
Junction City



You are the water running over me
and I am the rocks underneath.
Your juice makes me slippery.
When you go down on me,
I stick out.
Wear your white ruffles
and I will take you dancing.
If you wear your pretty green dress,
we could slow the beat down and do the two step,
and I will make you twirl and your lace panties will show.
Or we could get lazy and lie in the shade and be blue.
At any rate, I will hold you up for the world to see.
You have rounded me and made me smooth.
When you are strong,
you move me
and laps of kisses smother me.
When you are weak,
you melt into my arms.

You are the fluid.
And I, the course.
Together we make a river.

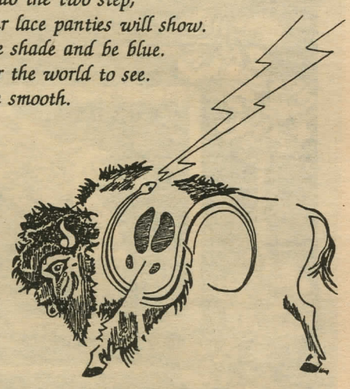
John C. Clark
Turtle Island

TERRITORIAL BALLET

As the fog moves in from the ocean
we recall the view on a clear day
and here we see the legend of
mother earth and father in the sky
embracing

arms wrapped around belly
belly wrapped in legs
rock takes the lick of the ocean
ocean shadows the sky
twins, although not identical
keep watch on their territory
there is thunder sometimes
and then a wing clips by
we remember clouds, free zone
where the heart, in constant celebration
keeps moving

C. Robyn Hunt
San Francisco

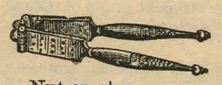


AN AWAKENING

Nightrise lights the crescent moon,
sky daughter tracing time in tides
that ripple orange toward the twilight
blurring sunset, island, self
as Superior sleeps gentle into night.

Centered in a skyline circle
skin and soul ache joyful in the loon call chill,
fierce Goddess kiss, waterweb, woman, spirit
in the rhythm of whose heartbeat
I discover myself, the lover and the dance.

Annika Fjelstad



Nut-cracker

CROSSING LA VERKIN CREEK

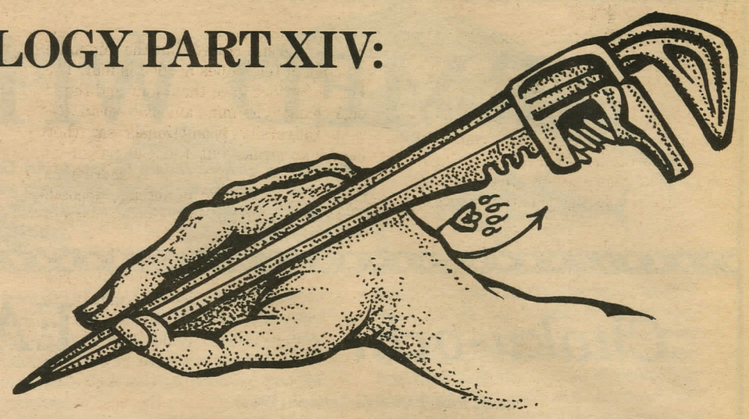
When crossing the swollen river
All one hears
is movement

All one sees
is beauty

All one knows
is true nature

Thomas Lowe Fleischner
Bellingham

THE POETICS OF DEEP ECOLOGY PART XIV: ANIMAS ROCK



by Lone Wolf Circles

DANA LYONS, *Dana Lyons, Animal*, $10 postpaid from EF! Music
CLAN DYKEN, *Clan Dyken*, $10 postpaid from Forward Productions, POB 1614, San Andreas, CA 95249

I can still see the mists rising from the valley, transforming the peaks into scattered islands, a steadily advancing beach as bright moonlight becomes daylight in this summer-land without dark. Thunder rolls up and spills over the Kettle River Range, the sound of a movement as it moves, the building energy for actions to follow. Revitalization! Rendezvous!

Thanks to the EF! bards, paring down our callouses to expose new skin and raw nerves with the ragged cutting edge of their humor. Thanks to those who fervently peeled off the opaque layers of film clouding our perception. Thanks to the local group that made it all happen, and to the Okanogan Dance and Drum Collective for the power tribal rhythms unleashed in my words, for drawing our shared vision with the movement of your bodies. Thanks to everyone who danced, and to the dust that never settles!

"Power Songs," as in aeons past, combine the motivating force of rhythm with the government-toppling strength of the word in a delightful alchemy of resistance. Commercial music fails us here. Looking to what's popular in America is a guaranteed tour of the over-produced, the facile, the trite, the harsh and the meaningless. Radio mainly offers us a "no-choice" between the white stucco sameness of suburban "Country Western" and the shallow blatherings of what I call "Paradigm Rock."

Rock 'n Roll, whose felonious soul led a generation in blind revolt, has lost its punch since being unacceptable became cool. When he comes over to visit their daughters, the "Mothers of Industry" no longer make Rock 'n Roll stay outside eating cold sandwiches. Except for an odd few (like David Byrne, Van Morrison, Bruce Cockburn...), Rock 'n Rollers seem ruled by their heads and pocketbooks rather than their hearts.

Even Reggae fails us, with Jamaican rabble-rock leaving the rest of creation out of their call for "equal rights." I was reminded of the explosive potential of Reggae working in the last year with bands like the incredibly hot Little Women and the effervescent Rootstock. It's a great and largely untapped medium ripe for our message.

Eliminate entire native populations from Caribbean islands, chain African slaves to the fields where jungle once stood, inject one nationalist brand after another of colonialist depredation, mix in varied ethnic music, bake under a hot equatorial sun for generations, and you have a danceable soundtrack for revolution! It could already be heard in the war-torn streets of '40s Trinidad, where Lord Invader and Growling Tiger faced off in Calypso "battles." From the Jamaican ferment of the last twenty years we have Mutabaruka's rabid denunciations of imported junk food and buttressed Babylon, Steel Pulse's "Earth Crisis," Marley's classics and the bloody-eyed wailing of Burning Spear. New York's Casselberry-Dupree are an excellent group of radical black women performing poignant Afro-Reggae.

From the belly of the beast, stateside Reggae is the rare phenomenon of America in revolt against itself, an often failed, cultureless guilt trip. It's an orgy of self-analysis seldom seen elsewhere, a search for roots, a mystical act with mirrors, a reaching out to love, a purging of addictive boredom ... From Clan Dyken's "Techno-Voodoo":

Video keeps the people in a (Ho-Ho Hum!).
The electrical keeps a watch on everyone (Ho-Ho Hum!).
The elders say some day,
a mighty wind is gonna blow it all away!
The holy prophecies say,
someday the Earth's a-gonna spin in a different way.
But until that day, they got you on a Techno-Voodoo.
We don't want no Techno-Voodoo!
Resisting Techno-Voodoo! (Ho-Ho Hum!)
Mother Earth's children moving underground.
Circles and X's being drawn...
...just give me the strength to keep on carryin' on!

This cut grinds to a sudden halt, ending with music pulling the plug on technology and the attendant oppressive mindset.

Clan Dyken is a family of five white alternative-type musicians using a black revolutionary style to override complacency, using their lives to awaken others. Carl's songs, stormy lead, snappy bass, percussive effects, two vital female voices — one spark. "One love, one destiny." What remains unique about our struggle is its global and immediate significance, its passionate promotion of equality between species. Reggae can help them really *feel* it, really *move* with it. Made worthy by both the intent and the act. Our songs receive help from a sacred and universal force, righteously consummated, activated ... From "We're Still Jammin":

When I raise my voice to the sky, it's in a sacred way.
I let the music lend the power to the words that I say

Root Rock. Relevant Rock.

Like the new Folk-Rock release, "Dana Lyons, Animal" ... The sounds of the munitions train that wouldn't stop for protesters on the tracks ("I Saw His Body") leave us trembling with compassion and a barely suppressed rage. Or "They're Building One In My City," with an ominous boom every seventh beat, tension mounting with the choral effects of a "day of judgement," impending karma in the form of a dark, swelling cloud. A faceless horror invades the life of an unsuspecting child, consensus reality collapsing with the blacking-out of the television picture... All the cars in every lane of the freeway point the same direction — away from the burning nuclear power plant.

Relevant, but irreverent. To imagine his song "RV," picture Lyons kidnapped by a crazed Country-Rock band, passing out double-barreled lyrics: "three tanks for the gasoline, two tanks for the waste..." Take for example the title cut, where critters do "strange things with their lips" and tongues "that are really long," plants "sucking up the sun," creatures "eating each other for lunch" to an Afro back-beat:

We dance like animals.
We love like animals.
We all are animals!"

Animals, a few of whom write slow, beautiful love songs to those closest to their hearts and to the Earth that inspires and sustains them ("Music off the Moonlight," "June Is a Comin," and especially "Kevin's Song"). Or the uptempo cry to fate, "Tell Me That You Want To Go."

Together with a particularly strong drummer, Dana often arrests the flow of the music, a brief pause designed to dramatize each resumption. Superbly mixed, funny and sad, tender and strong, this is one of the finest environmental recordings ever made, and *regardless* of the topic, some of the best new acoustic rock I've heard. I was in tears at the Patriot's Rally, Dana performing "The Tree" with me:

There's a river flowing near me,
And I've watched that river change and grow,
For eight hundred years I have lived here
Through the wind, the fire, and the snow.
I see salmon return every summer,
And I watch young owls learn to fly,
I have felt the claws of the grizzly,
And I have heard the lone wolf's cry.
I have seen great glaciers melting,
I've met lightning eye to eye,
But now I hear bulldozers comin',
And I know that I am soon to die.
Who will house the owl?
And who will hold that river shore?
And who will take refuge in my shadow
When my shadow falls no more?"

I still feel the moisture rising up the sides of the Kettle Range clearcuts, hear the last wordless notes he sang. I know that it's not a matter of what we stand to lose, but what stands to be lost...

And finally, there's "Timebomb," as musically exciting and fresh as groups like the Everly Brothers sounded to us when rock was young. What can I say about it, the eco-activist song of the year?

That townhouse used to be my tree-fort.
That highway used to be the wood.
That building used to be the beach.
That brown haze used to be the sky.
Oh say goodbye, oh say goodbye.
Those craters used to be Nevada.
That cesspool used to be the New York Harbor.
Those mountains used to be so Appalachian green.
Oh say goodbye! Oh say goodbye!
That smokestack used to be Ohio.
That pipeline used to be the rolling tundra.
That airport used to be the swamplands.
You'd better say goodbye. Oh say goodbye!
We're sailing on a timebomb,
getting harder to see the blue.
We're sailing on a timebomb,
Is there nothing we can do? Nothing we can do??

He answered himself in his introduction at the RRR: As a little kid who just saw your treehouse bulldozed, you don't *wonder* what to do. You *know* what to do!

Turning the wild little kids inside of us loose on the despoilers, setting the animals inside us free to do their natural dance of resistance! Primal Rock. Animas Rock.

Lone Wolf welcomes your personal letters, recommendations, and review copies of recordings or books of poetry: LWC, Box 652, Reserve, NM 87830.

Out of Africa ...

Continued from page 24

ulates, thrifty, growing grass was the norm, Pronghorn might have evolved to have green pelage rather than butterscotch.

The above does not mean that Savory's teachings are without merit. Much of what he advocates – careful land husbandry, the elimination of year-long grazing, and less reliance on mechanical solutions to vegetation problems – is commendable. Support should be given to his positions against spraying grasshoppers, reseeding with exotic plants, and poisoning predators and prairie dogs. Attempts by ranchers to implement his teachings on private lands where the average annual rainfall exceeds 15 inches might even be encouraged. Additional Savory management schemes on public lands, especially those in arid and semi-arid areas, should be resisted, however.

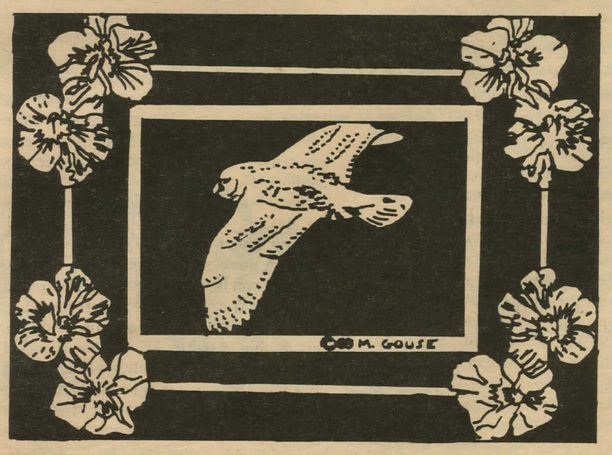
Savory's axiom that "you cannot take it and leave it to nature" is a favorite cryptogram. The interpretation encouraged by Savory is that rangelands *must* be managed ... that is, grazed. But what the statement really says is that you cannot leave it to nature *if* you take it from nature. The whole concept of "holism" breaks down when it comes to rationalizing resource extraction. Whether the product be trees, grass, or cattle, the energy cycle is broken when significant amounts of these commodities are removed from the land. The larger the number of cattle taken to market, the greater the number of board feet of lumber hauled, the bigger the deficit. Even after only 100 years of grazing in the Southwest, our debt to the land is enormous.

Savory's teachings that no grazing leads only to range decadence and lower productivity are not borne out by either logic or observation. (My conclusion is based on more than 25 years as a wildlife biologist for the Arizona Game and Fish Department.) The benefits of no livestock grazing have been adequately tested on the Kofa and Cabeza Prieta National Wildlife Refuges in southern Arizona and on Big Bend National Park in southern Texas. Less extensive exclusions, as on the Audubon Society's Research Ranch in southern Arizona, bolster the argument that wildlife conservationists should set as a goal elimination of all livestock grazing on public land receiving an average rainfall of less than 15 inches a year.

Elsewhere in the western US, Savory's methods need to be further tested through the use of carefully controlled experiments using paired test areas. Even then, it must be remembered that to be successful, the result must be range rehabilitation – not just increased stock numbers or weight gains. Our public rangelands have received too many failed remedies. Exotic grasses, uprooted mesquites, "pushed" junipers, and a plethora of fences are the legacy of programs that failed. It's time we forsook such costly and desperate measures, but more importantly, let us not sacrifice more land in what will almost certainly be another false hope.

David Brown is a widely acclaimed author whose works include The Grizzly in the Southwest *and* The Wolf in the Southwest. *He is currently compiling an anthology on the Cougar in the Southwest.*

Research for this article was partially funded by the Earth First! Journal *Research Fund. To help us provide our readers with more such carefully researched ecology articles, please contribute to the Fund. Send checks, earmarked to the Research Fund, to the EF! Foundation, POB 50681, Tucson, AZ 85703.*



Mount Graham . . .

Continued from page 7

gressional rider, which begins: "Notwithstanding any other act, law, rule or regulation..." The rider thereby effectively bypasses the public participation process mandated under NEPA. The rider dictates an arbitrary land allocation of 150 acres on the Pinalenos with no input from the biologists familiar with the Endangered squirrel. It chucks the land guidelines in the Coronado National Forest plan. It abandons the Endangered Species Act – providing no procedure to stop violations should the University make "mistakes," like bulldozing extra forest. It sidelines the National Historic Preservation Act, which requires sacred sites of ancient cultures to be sought and preserved. It ditches the Native American Religious Freedom Act, which requires consultation with tribes that may want to claim cultural sites for their own use. It jettisons all state laws concerning wildlife, archaeology and water rights.

In short, the proposed Congressional rider ignores biological recommendations for saving the squirrel and supercedes all Congressional protection laws. In recent years, 80 species proposed for listing under the Endangered Species Act have gone extinct while awaiting listing, and another 300 species proposed for listing may have become too depleted to recover. (So far, the US Fish and Wildlife Service has only listed about 1000 species as Threatened or Endangered under the ESA, 400 of these in the US, while another 1000 species are candidates for listing.) Species listed and species proposed for listing have gone extinct due to agency lack of funds and developers' failure to heed the law. Had the University chosen to follow legitimate procedures while pursuing its development aims, it would have appealed the jeopardy opinion on the status of the Red Squirrel issued by the Fish and Wildlife Service.

You can spot the University's environmental deceit by its changing of the facts. The U of A has stated that the minimum number of telescopes needed is four. The Forest Service gave them four and the U of A changed its mind and said seven. Recent University promotionals say they need two peaks but the Congressional rider says four. The U of A also keeps changing the amount of acreage needed. The rider would put 150 acres exclusively under their control.

The environmental trickery has compromised the University's reputation. The U of A claimed that Mt. Graham (High Peak) was the best peak for astronomy, then switched to Emerald Peak. Amazingly, the astronomers have never fully tested Emerald Peak. The U of A claimed the Pinaleno peaks were the best in the US, but a team of experts chose Hawaii's Mauna Kea for the world's largest proposed telescope (the NNTT) because it is better. Congress has already designated the Mt. Baldy area in New Mexico as an international observatory. Mauna Kea has more room and parts of Mt. Lemmon near Tucson have already been leveled once for scopes and could be renovated for submillimeter telescopes without environmental destruction.

The University has tried to suppress contrary opinions. After *Audubon Magazine* solicited an article on the scopes and Mt. Graham, the U of A successfully applied pressure to squelch it. Tucson Audubon remains strangely silent on this, the major environmental issue in southern Arizona. Other Arizona Audubon groups (Huachuca, Maricopa) have joined the Coalition. A U of A employee writing for *Nature* was told she could not publish anything without University review. A U of A biologist lecturing on the controversy was monitored by a task force and told that his contract might not be renewed. Indirectly, Nature Conservancy was offered thousands if they would say the scopes were harmonious with the forest and squirrel.

An organization of over 70 well-known biologists and ecologists (including many of the world's experts on the Southwest) opposes the complex. Their press release states that any development on the peaks is "incompatible with ... maintaining Mt. Graham's natural integrity over time." The Arizona Game and Fish Commission opposes the scopes. But the U of A has claimed two of its biologists know more. These two biologists have no experience with western coniferous forests. One is a theoretical mathematician and the other studies soil microbes. They have so discredited the Department of Ecology that recent grants to study the Pinalenos have gone to other departments or other universities. Yet the Congressional delegation listened to only those scientists who were politically expedient.

The University's acts belie its claim that it is the best manager of the Pinalenos. During its testing phase, it illegally drove an all terrain vehicle off roads, illegally cut an old growth tree to get a better view of the night sky, illegally dumped diesel oil onto the ground, and fed the Endangered squirrel (which, under the ESA, is considered harassment).

By the time this is published, it may be all over. If the rider has not passed, call or write your Congresspersons (senators, US Senate, Washington, DC 20510; representative, House of Representatives, DC 20515). Tell them you oppose any rider from the Arizona delegation that helps destroy Mt. Graham. Tell them the delegation's rider by-passes NEPA and weakens the Endangered Species Act. For more information, call the Coalition: 742-3526.

Raven Madd is a widely touted scientist whose career might be jeopardized should he reveal his opposition to the project.

SW RENDEZVOUS HELD ON MT GRAHAM

With video cameras rolling, a large red squirrel flipped a well-used monkey-wrench through a polished mirror on Emerald Peak. With that act, Max Planck and Smithsonian institutes and other telescope developers in cahoots with University of Arizona's Steward Observatory, and all lawlessly hell-bent on destroying a sky-island ecosystem, would know that the opposition was serious.

Fifty Arizona and New Mexico Earth First!ers gathered on Mt. Graham for a Labor Day Rendezvous to familiarize themselves with the threatened area and to strategize on how to save the beleaguered mountain. Within days the Arizona Congressional delegation (lawmakers or lawbreakers?) would be attaching a rider to a bill that would, if passed into law, circumvent the Endangered Species Act and force telescope development that would destroy Emerald Peak.

To prepare for dedicating themselves to stopping bulldozers, the activists first toured High Peak to see the damage wrought by Steward when it left after a permit for a temporary complex expired: spilled diesel oil, a trashed "rehabilitable" tower site, the midden of an Endangered Red Squirrel that astronomers domesticated by feeding potato chips, a trodden sacred shrine, and a shed overdue to be removed on which a banner was affixed, insisting: RESTORE MT. GRAHAM, HANDS OFF EMERALD PEAK.

Then, it was off in silent procession on winding trails, passing cienegas formed with the help of glaciers, through the Englemann Spruce/Corkbark Fir old growth to Emerald Peak, where dedications to save the living mountain with living bodies were made and the mirror was symbolically shattered.

The weekend's events followed a hot week in Tucson, where Dave Foreman was quoted in all the local papers as saying, "There are people who are prepared to make them put the scopes up there several times – which means a telescope doesn't see the stars very well if its mirror is broken." A day after that hit the press, forty demonstrators gathered at Senator Dennis DeConcini's office to inform him that "scopes are not above the law." While the demonstration was generally peaceful and legal, a large banner with that message somehow appeared over the building's well-guarded entrance, hanging from a third-floor balcony.

–John Patterson, Tucson EF!

Earth First! Bulletins

*ENVIRONMENTAL LEGAL SERVICES NEEDED. Pro-bono attorneys, para legals, and law students are needed to work on a voluntary basis with the Earth First! Biodiversity Project. Efforts involve the development of legal positions on behalf of biodiversity in the following states: Maine, New Hampshire, Connecticut, Virginia, West Virginia, Ohio, Florida, Texas, Oklahoma, Arizona, New Mexico, Nevada, Colorado, Utah, Wyoming, Montana, Idaho, California, and Washington. Write Jasper Carlton, EF! Biodiversity Project, 2365 Willard Rd, Parkersburg, WV 26101.

***INFORMATION WANTED.** The EF! Biodiversity Project is broadening its study of the effects of BLM programs on sensitive, Threatened and Endangered species of wildlife, and requests information from both agency and independent biologists and naturalists on the status and distribution of less known species as well as ecological processes. If you know of species in trouble on BLM lands due to habitat destruction or human caused mortality, write the EF! Biodiversity Task Force, 2365 Willard Road, Parkersburg, WV 26101. This information is needed to develop administrative, legal and public education programs on behalf of these species and their ecosystems. Anonymity is assured.

The Earth First! Biodiversity Task Force is also seeking information about any wild animal or plant species in the contiguous US that may be in trouble due to habitat destruction or other human caused mortality. If you have such information or information on the degradation of ecosystems upon which these species depend, or if you know of species on public lands that should be identified and managed as "sensitive" or of "special concern," or that should be protected under the federal Endangered Species Act, please send to the EF! Biodiversity Task Force, 2365 Willard Rd, Parkersburg, WV 26101.

GRIZZLIES ON TV AND ON THE ROAD! "Peacock's War," the award-winning documentary about Grizzly Bear expert Doug Peacock, will be shown nationally on PBS, Sunday, October 30. Also this fall, Peacock and friends will take a Grizzly road show on tour. To arrange a show or find out where they'll be, contact Roger Featherstone, Box DB, Bisbee, AZ 85603.

*SOUTHWEST NEW HAMPSHIRE EARTH FIRST!ERS WANTED. EF!er seeks fellow EF!ers in sw NH. Contact Forrest Seymour, 32 Beech St, Keene, NH 03431; 603-357-8018/242-3227.

Reviews . . .

Continued from page 32

THE SOLACE OF OPEN SPACES, Gretel Ehrlich, The Audio Press (POB 935, Louisville, CO 80027), 1988, $14.95, 2 cassettes.

Gretel Ehrlich is, by her own description, a refugee from modern American society. A disenchanted product of contemporary California upbringing, she went to Wyoming in 1976 to make a film, felt a rustic appeal, and stayed. Taking a job on a sheep ranch, she eventually immersed herself in the traditional ranching subculture of the area. "I suspect that my original motive for coming here was to lose myself in new and unpopulated territory. Instead of producing the numbness I thought I wanted, life on the sheep ranch woke me up." Today, she and her husband run a livestock operation just west of the Bighorn Mountains.

Since her ranching rebirth, Ehrlich has made a living both raising livestock and writing about rural life in the Cowboy State. A book in 1985, *The Solace of Open Spaces*, won her national recognition. Six selections from the book and three later essays, narrated by the author, compose this double cassette.

Ehrlich's writings, delivered here in a near-monotone which becomes somewhat unnerving after an hour or two, are nonetheless articulate accounts of rugged Wyoming ranch life and the country in which it takes place. The earthiest, most interesting cowboy lore has been skimmed off the top and presented with seemingly relentless honesty. Characterizations of local cowboys and ranchers are told with uncommon candor. Her descriptions of the Wyoming landscape are at once reminiscent of Annie Dillard in their sense of wonder, Whitman-like in their beauty, and overwhelming in their harsh reality.

However, appealing as it is, Gretel's almost brutally honest presentation soon begins to chafe, for a number of reasons. Ehrlich's material and her delivery convey such intensity of purpose – as if every line is urgently important – that the listener begins to feel a sense of overdramatization, excessive profundity. Interesting ranching experiences are given much greater significance than called for. Anecdotes from the lives of cowboys lose their humor.

In short, Gretel's attempt to portray the traditional ranching lifestyle as earthy and genuine ultimately comes off as calculated and overdone. The crusty, rustic, dusty, old-time Wyoming cowboy is thrust before the listener like a pig's head on a silver platter.

In her low-keyed way, Ehrlich practically flaunts her new-found ranching reality in the face of modern society (thereby distancing herself from her own former reality). She takes its cowboy myth, embellishes the folksiest parts to an extreme, and offers it for sale on paper and tape.

Not that Gretel doesn't seem genuinely enchanted with her new life as a rancher, or the rugged Wyoming landscape. "People here still feel pride because they live in such a harsh place – part of the glamorous cowboy past . . ." Through ranching, Ehrlich has found her place in society, home on the range, window to the natural world, and dual source of income. Just try taking that away! When identifying herself as a rancher, you can feel the same aw-shucks-I'm-just-a-COWBOY (so why should I have to brag?) humble pride prevalent in the livestock business.

Interestingly, under the surface of Ehrlich's message is a naive (or perhaps negligent) romantic vision almost "New Age" in flavor – perhaps the result of an unshakable contemporary California past. With a reverence bordering on worship, her narration contains numerous glowing descriptions of wonderful, folksy cowboys. Completely missing are the petty bickering, feuding, lies, greed, threats, mindless violence, social injustice, local political corruption, and so forth also commonplace throughout the ranching West.

Ehrlich's subtle implications are also somewhat offensive. She might be reminded that ranchers and cowboys have no monopoly on folksiness. Further, the earthy cowfolks showcased here represent only a tiny fraction of the modern ranching community, itself an integral part of mainstream America. And, as for living *with* the land, livestock graziers are far behind many others, even including those back-to-the-land hippies toward whom they're so hostile.

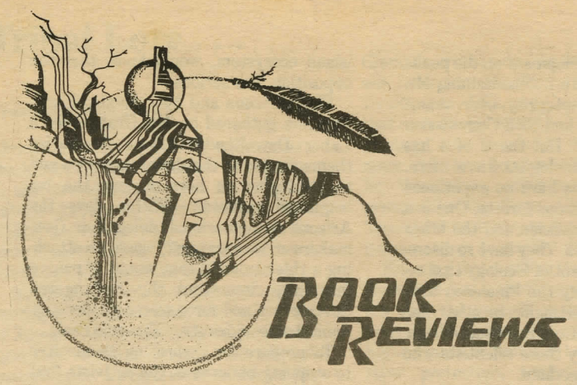
Even more disturbing is Ehrlich's environmental irresponsibility. She expresses opposition to expanded mining (ranching competition), but hasn't a word to say about how the grazing industry continues to trash *most* of the Wyoming landscape (expectedly, all that overgrazing happened 100 years ago!), not even the heavily abused Bighorns, where I assume she runs cattle and sheep in the summer. It's easy to profess environmental concern when it doesn't involve sacrifice on one's own part.

Also curiously missing from Ehrlich's tapes is any reference to the public (and private) lands government grazing giveaway which has historically enabled these ranchers to live on lands not fit for intensive human use. Her heroes are, unfortunately, established welfare chiselers.

Ehrlich views the western landscape as a tough, albeit beautiful and fascinating, competitor. Her respect for it seems to stem from (and be limited by) confrontation, rather than cooperation.

As a disenchanted product of contemporary California upbringing myself – one who has spent the past two decades willingly living a "primitive," rural existence – I can easily understand Ehrlich's infatuation with her new-found rural lifestyle. But, instead of "losing herself in new and unpopulated territory," Ehrlich seems to have lost her perspective in her new identity. Just what does she mean by "The West, however disfigured, persists"?

–Reviewed by Lynn Jacobs, Sonoran Desert, AZ.



SIMPLE IN MEANS, RICH IN ENDS: Practicing Deep Ecology, Bill Devall, Peregrine Smith Books (POB 667, Layton, UT 84041), 1988; available from EF! Books.

Simple in Means is indeed rich in ends. This book serves as an informative sequel to Deep Ecology, by Bill Devall and George Sessions, and as an important contribution to the philosophy and practice – or praxis – of deep ecology. Devall aims with this book to answer the many environmentalists who have read *Deep Ecology*, found it convincing, but then wondered, "How are we to put this philosophy into practice?"

To provide background discussion necessary to answer that question, Devall presents what is probably the finest introduction to deep ecology which he has yet written. In it, he does not merely re-present the basic tenets of deep ecology – most of which should be intuitively obvious to the informed reader – he expands the discourse and insightfully addresses the questions of whether and how both reform environmentalism and its alternative, biocentrism, should be used in defending wild places. He concludes that, in some situations, reform (shallow ecology) arguments can be appropriate and effective, but that generally it is dangerous to employ anthropocentric arguments. Devall agrees with Theodore Roszak:

However, when the environmental movement becomes predominantly a refugee camp for dissident experts from corporations or academia, and when the primary emphasis in the movement is to provide expert opinion to government agencies, then reformers are helping to increase bureaucratic domination. The strategy of countervailing expertise, says Roszak (1972, 50) "leaves wholly untouched the great cultural question of our times. It does not challenge the universally presumed rightness of the urban-industrial order of life." (p.127-8)

In distinguishing deep ecology from other philosophies, Devall looks at New Age thought... and fairy shudders. Devall warns of the dangers of New Age thinkers' advocacy of high technologies and human attempts "to govern evolution" (see Walter Truett Anderson's *To Govern Evolution*, recently skillfully critiqued by Peter Berg). While other ecosophists have effectively debunked New Age faith in technology, Devall deals another blow to the New Age theorists: He justly denigrates their tendency to artificially integrate disparate spiritual traditions. Not only may this involve an almost philistine insouciance for the integrity and singularity of distinct native traditions, it also may involve creation of a false sense of self-awareness "comparable to the 'false consciousness,' which Marxists assert arises in late capitalist societies due to the incessant propaganda of the ruling class."(45)

Devall, with commendable honesty, then faces the eco-feminist critics of deep ecology. While not altogether rejecting their criticisms, Devall suggests that even more fundamental than the problem of patriarchy is the problem of anthropocentrism:

Many feminists conclude that women and feminine archtypes have been suppressed under the patriarchy and hierarchy of western civilization. These feminists also suggest that androcentrism (male-centeredness) is the root of our ecological crisis. Just as the patriarchy and hierarchy have dominated the feminine so have they dominated nature, especially using the methods of modern science. Feminist critiques have provided powerful insights exposing the once hidden assumptions under which modern civilization operates. I agree with feminists who argue that men have been involved in the destruction of nature more than women during the past five hundred years of western civilization and perhaps for a much longer period.

However, men and women both still, to a large degree, put nature as a backdrop to interhuman problems. Anthropocentrism remains the central concern of deep ecology.... (56-7)

Perhaps on the opposite end of the environmental spectrum from the eco-feminists are the critics of deep ecology who disparage Arne Naess, Bill Devall, and other deep ecologists for their heavy emphasis on personal growth, an emphasis which seems to clash with biocentrism. (Cultivate ecocentrism, not egocentrism, some critics warn.) Bill Devall satisfactorily explains that "self," as he and Naess employ the term, implies much more than our individual selves, implies ultimately all life. Furthermore, Devall notes that until individual people cultivate their ecological selves, and thus experience Earth differently, a paradigm shift will elude us: "Before changing paradigms or political ideologies or social institutions, it seems to me, we must change the way we experience life."(37)

While on this theme, Devall reminds activists that negative exhortations will not suffice to usher in the new paradigm, the shift in human consciousness, essential if Earth is to abide the human sojourn on its continents. In fact, preaching duties, Devall implies, may detract from our efforts by causing people to surrender to despair. Central to inculcating into our agenda positive programs are practice and place. We must live – practice – deep ecology, and this is best done by each individual in her or his own place. "Total identification with 'organic wholeness' is possible only after identification with some living being more immediate and tangible...."(46)

It would scarcely be fitting to review a scholarly book without criticizing it, so here are a few possible vulnerable points in this fine work: Many readers will find Devall's discussion of personal growth, the ecological self, and the individual as warrior to be the most abstract and least convincing portions of his book. (Excepting, perhaps, his fascinating speculation on Sasquatch as a being which has achieved its ecological self, which might lead us to endorse the motto 'Strive to be Sasquatch!') For many of us, acculturated as we are into a materialistic and despiritualized society, discussion of spiritual matters in a context – English prose – best suited for rational dialogue moves us but little. For many men especially, estranged by modern society from our intuitive and creative faculties – from our right cerebral "hemispheres" – the Eastern (e.g., Buddhist), non-utilitarian way of thinking and acting espoused by many deep ecologists seems overly passive and esoteric. Personal growth, for many of us, is measured in inches of girth. For many others, *personal* growth is primarily *personnel* growth, an increase in the number of persons over whom they have power. No doubt, personal growth, the appropriate roles for warriors, and the tension between goal-oriented practice and equanimity (calm acceptance of favorable *or* unfavorable results) will remain matters of debate among deep ecologists. Hopefully, in this debate, deep ecologists will look to Nature for guidance. It may be that naturalists, conservation biologists, and natural history writers will be more effective in urging Americans toward a deep ecological consciousness than will spiritualists or philosophers. Simply showing Americans the glories of natural ecosystems may be more powerful, in this culture, than advocacy of any philosophy or primal tradition. In short, the above criticisms may be shallow or even unfounded, and they are mainly offered in hopes of encouraging dialogue, but it seems reasonable to suggest that it would behoove those deep ecologists who stress personal growth and the ecological self to make their arguments more accessible and tangible for the masses.

These minor criticisms notwithstanding, *Simple in Means, Rich in Ends* is essential reading for deep ecologists. Of the unprecedented number of deep ecology books being published in 1988 (10 or more in the US), this will rank as one of the outstanding.

–Reviewed by John Davis.

THINKING LIKE A MOUNTAIN: Towards a Council of All Beings; John Seed, Joanna Macy, Pat Fleming, Arne Naess; 1988; New Society Publishers; 128 pp.; $9.50 from EF! Books

EARTH FIRST; Jeni Kendell and Eddie Buivids; 1987; Australian Broadcasting Corporation; 167 pp; $25 from EF! Books

The real struggle today is not the reformation of government and society, but our reintegration into the sacred planet-body we would otherwise destroy. There is no personal salvation apart from this global endeavor. Survival of the Earth, and thereby of humankind, lies in this recognition of our larger, multi-species, planetary "self," of our vital inseparability.

Anthropocentric philosophies, religions and politics are mere "fingers pointing at the moon," bereft of the terrestrial substance of meaning, as divorced from direct experience and removed from direct action as an audience from a play. Our endless intellectual distinctions seem to arise only to burst into nothingness — spheric membranes without content. Human-centered dialectics form a surface layer of activity, the shallow, evidential bubbling of a terminal ferment.

There is no cure in a political vocabulary, in the changing names of human saviors and their institutions., There is no cure in religions that stress redemption through obedience or Godliness through leaving the body. The cure is in going deeper than dogma and the sterile polemics of servitude, into our true beings. Into the passionately alert milieu of a more vividly experienced reality, into a deeper sense of place: Deep Ecology. The cure is in rediscovering our place of equality in the "council of all beings." In the new book, *Thinking Like a Mountain*, John Seed prays: "May we all awaken to our true and only nature — none other than the nature of Gaia, this living planet Earth. Fill us with a sense of immense time so that our brief, flickering lives may truly reflect the work of vast ages past and also the millions of years of evolution whose potential lies in our trembling hands."

Soulful contact with our spiritual/ecological self is no longer the gift of our cultures, for the tribal cultures have vanished. It is a playful but demanding, *intentional* process. The Council of all Beings marks the re-emergence of deliberate and meaningful ritual for healing ourselves and the rest of this world. Reconnection can be a rending experience, requiring us first to shred our narrow, egocentric concept of self, tear down our programming and abandon the comfort of our habits and preconceptions. As conscious participants in evolution, we celebrate our metamorphosis, our homecoming, our coming together in the supporting arms of the Council. The ritual, like the book, directs the energy of our internalized despair away from apathy and toward the most resolute expressions of direct action. From this vibrant arena, consequence and result seem secondary to the act. The Tao of doing.

"Ritual also helps us be more aware of the ritualized character of virtually all nonviolent direct action, and thus helps us make these actions more powerful."

"The intellect is one entry point to this process ... For some people, however, the change in perspective follows from actions on behalf of Mother Earth. 'I am protecting the rainforest' becomes 'I am part of the rainforest protecting itself. I am that part of the rainforest recently emerged into thinking.'"

Like in "The Testimony of Graham Innes," buried up to his neck in a blockade, reaching out to those who threaten his life and the life of the Daintree Forest: "I am here for the Earth and the forest. Please understand my meaning. You strip the Earth of her mantle. The cloak which protects her and all of life.... Go home, sir, go home ... Words have failed to provide the answers and now I see they have failed to touch your sensibilities. I can only stand mute as the trees."

Dailan Pugh's meticulous line drawings grace this collection of thoughts and ritual by Arne Naess, Chief Seattle, Pat Fleming, the poets Barbara Deming and Robinson Jeffers, and activist/teacher Joanna Macy: "By your very nature and the journey you have made, there is in you deep knowledge of belonging. Draw on it now in this time of fear. You have Earth-bred wisdom of your interexistence with all that is. Take courage and power in it now, that we may help each other awaken in this time of peril."

As we expand our concept of "self" and "backyard," the rainforest looms in front of us, a visage smelling of steaming soil and a thousand varied blossoms. We know now that they are a repository of genetic memory, a unique dance of diversity, a breathing source of purest oxygen — 35 million years of diversification predating the final separation of the continents, shrinking to almost nothing during the Ice Age, flourishing again until the most recent decimation by shortsighted humans. In contrast, it has taken less than the last 200 years to destroy ¾ of Australia's rainforest.

Earth First is the companion book to the powerful film of the same title. Eddie Buivids joins film-maker Jeni Kendall in creating this dramatic chronicle of resistance. Following a description and history of rainforests, they trace the events in 1979 at Terrania Creek, the first case of environmental civil disobedience in Australia; the Nightcap campaign that resulted in park protection and World Heritage status for most of the remaining rainforest in New South Wales. 1,272 "greenies" are arrested blockading the Gordon and Franklin Rivers, eventually stopping the proposed dam.

Stunning color photographs illustrate the beauty, the struggle, and the destruction. They end with the gut-wrenching story of the road pushed through the Cape Tribulation National Park, exposing the hills to erosion and the Great Barrier Reef to sedimentation. Protesters were attacked by chainsaws, dug-up from the road with backhoes, and chewed up by police dogs until finally in August '84, the second and final blockade collapsed.

Thinking Like A Mountain, drawing upon the fertile inspiration of the rainforest within us for the will to go on. The power to continue the struggle: "Nonviolence at its basis is a recognition of the integrity of life, and of the community in its widest sense. What better symbol than the symbiotic, sharing community of plants and animals within a rainforest?"

"Nonviolence is active, not passive. It is an act of hope and an act of love."

—Lone Wolf Circles

VILLY SADNESS, Rodney Nelson with drawings by Trygve Olson, 1987, New Rivers Press (1602 Selby Ave, St Paul, MN 55104), $7.95, 114pp.

Earth First!er Rodney Nelson has written an absorbing novel about life and death and Nature in the Red River area of North Dakota. The ecological undertones are subtle, but telling, and the novel educates as it engrosses.

– John Davis

GAIA: AN ATLAS OF PLANET MANAGEMENT, Doubleday & Co., 1984, 272pp. $18.95.

This book is a "must read" if you care about the fate of the Earth. Divided into seven sections – Land, Ocean, Elements, Evolution, Humankind, Civilization, and Management – each is considered from the perspectives of potential resources, crises, and management alternatives including corrective alternative strategies. There is a wealth of data, vivid graphics, and an authoritative text by leading thinkers on environmental, political, and social issues.

The *Atlas* is not highly technical, though it contains numerous charts and statistics helping explain the state of the Earth. Assurances are made that a cure for the present environmental crisis is possible, but the worry is that a worldwide effort will not happen in time. Especially alarming is the proof of the increasing rate at which destructive environmental changes are taking place. The most important questions left in the reader's mind concern whether the environment will be prioritized above profit, and whether, despite all efforts, we will in fact experience a grim future. In 1988 these questions remain unanswered, which means there is hope.

–Reviewed by Craig Stehr.

continued on page 31

The WEJ

The Western Environmental Jobletter is an environmentalist's employment directory listing jobs found in western North American bioregions. (But it also offers philosophical discourse in support of Grandmother Earth). For a backissue send a 25¢ stamp or for free information on how to subscribe, write:

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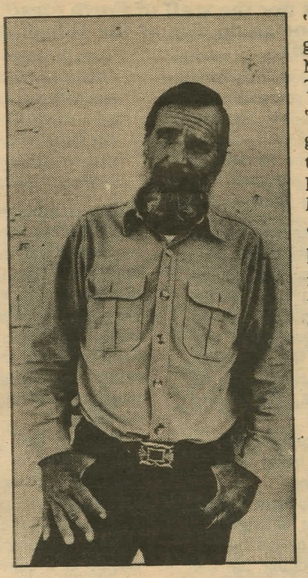

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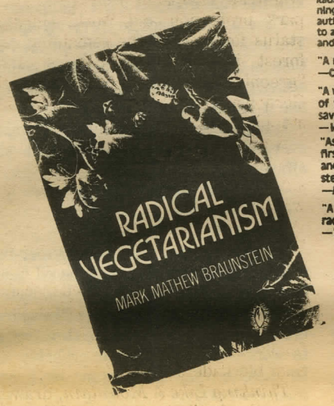
Photograph by ALAN BERNER © 1988

Politically active pagan seeks a home near the T with other Boston area green-eyed fire-breathing environmentally obsessed Wiccan anarchist maniacs. Craig Stehr, 770-3278.

Radical Vegetarianism

A DIALECTIC OF DIET AND ETHIC



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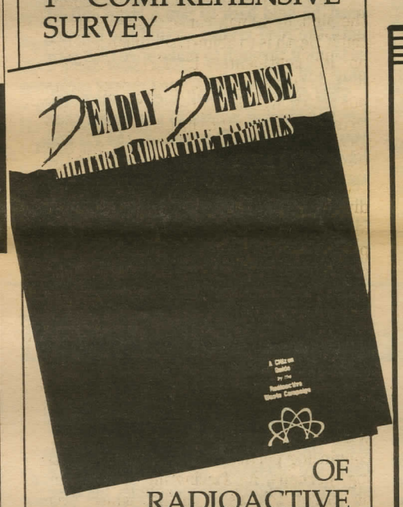

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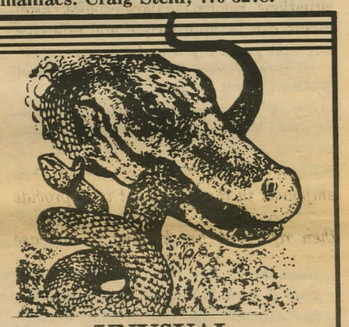

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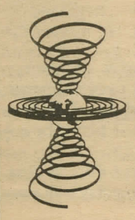

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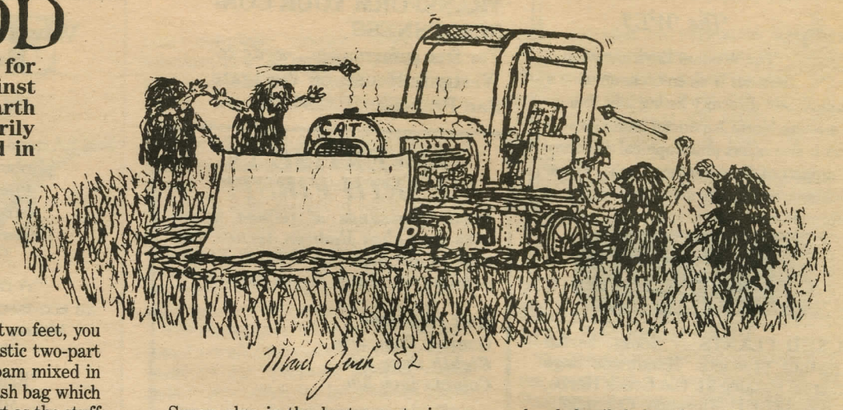
DEAR NED LUDD

DEAR NED LUDD is a regular feature in *Earth First!* for discussion of creative means of effective defense against the forces of industrial totalitarianism. Neither the Earth First! movement nor the staff of *Earth First!* necessarily encourage anyone to do any of the things discussed in DEAR NED LUDD.



CALL FOR SPIKING ACCOUNTS

We are assembling a complete file on tree spiking incidents nationwide from which to draw general conclusions about the frequency and effectiveness of the tactic. The information will be released in press conferences and essentially misused to sensationalize the situation, exploit the media and scare the shit out of Freddie and his boss, the timber industry.

We need your help to compile our account. Please mail to the below address information on the following:

- Specific (by timber sale name or legal description) location of the spiking(s);
- Approximate date of the spiking(s);
- Planned date of bidding on the timber sale;
- Was notice of the spiking given?
- To whom was notice given (Forest Service, logging contractor, mill, press)?
- Did the incident receive media attention or was it covered up?
- What has happened to the area (was it sold on schedule, was it logged, was it dropped)?

Other information may also be useful, such as number and type of spikes used (nonmetallics?), estimated costs (to FS or industry) of search and removal, mill damage, etc. Feel free to analyze the incident(s) and the effectiveness of spiking in general.

Write us anonymously, following all precautions listed for sending communiques in the second edition of **ECODEFENSE.** We don't want your name or fingerprints on your letters. The final report will be worked into an article for "Dear Ned Ludd" in early 1989. Thanks!

Mail to: WEF!, POB 2962, Bellingham, WA 98227.

Dear Ned

Safe & Easy in the last issue made the true statement that tree spiking is noisy, and suggested that a hole be drilled to accommodate the spike – thus reducing the amount of noisy hammering. The problem with this is that it severely limits the number of trees which can be spiked in a given amount of time.

Here in the Northwest, security is a major concern. What I've found to work well is taking the ol' hammer and spikes and doing my thing in the rain. (Yes, one does get soaked. But one doesn't leave tracks!) Rain drastically cuts down on the amount of noise produced by hammering. Rain also seems to keep the Freddies indoors.

I also write my communiques in the winter, after the snows have come. It annoys the hell out of the loggers when they know they can't check on your work until late spring.

One last suggestion: Since metal detectors are the rage of late, I also pound in scores of small standard-type nails. They may not stop a saw blade but they will frustrate the piss out of the guy or gal with the detector. It also helps to camouflage where I put the real spikes.

–Just Another Earthling

Dear Ned

The best cheap material for introducing into oil systems of big yellow machines is titanium oxide, which is available in 5 pound bags at rock shops or lapidary suppliers. Purchase bags of both coarse and fine titanium oxide. Mix one pound of each with half a gallon of motor oil. Pour the mixture into the oil system of a bulldozer, earth mover, logging truck or whatever. This will turn any piece of heavy equipment into a boat anchor.

–Mechanic

Dear Ned

To jam a culvert . . .

A) You can do like George Stewart in his novel **Storm** and jam a big old dead hog in it.

Naw, too damn heavy to carry up a Forest Service road in a backpack.

B) If the sucker is between, say, six inches in diameter and, oh, two feet, you could use this whizbang plastic two-part expanding wall insulating foam mixed in appropriate amounts in a trash bag which you quickly jam in the culvert as the stuff expands. The trash bag (small for small pipes, large for large ones) will force the foam to inflate across the pipe diameter rather than along its length – thereby plugging it instead of just laying along its bottom.

Buy the two part stuff (50/50 mix), which comes in 2 one pint containers (available at home builder supply stores). It supposedly expands 40x the liquid volume, but assume a 50% advertising exaggeration. Therefore, if you have an initial volume of 1 quart (2 pints) with a 20x expansion, you have 5 gallons of foam filling the pipe. An initial volume of 1 gallon would fill the culvert with 20 gallons of foam. But be scientific and experiment with the stuff before trying it in a culvert you want to plug. Just a couple quarts of liquid and some trash bags. Not too heavy for a backpack.

C) If the culvert is larger than 2 feet in diameter, you could probably tie several large foam bags together with some kind of cross bracing to jam the pipe. Remember that a hell of a weight of water must be held back to jam a large culvert until the road erodes around the culvert, so think it through to make sure that your plug will hold.

This culvert washout idea is much better at reducing access to the forest than you might think. The damage the FS will have to repair on forest roads will use the same road construction funds needed for new roads. The more we can make them spend repairing existing roads that shouldn't be there anyway, the less they will have to spend on building new roads. Concerns about the federal budget and deficit play into our hands on this.

–Lord Byron
Engineering & Technical Support Services

Dear Ned

While Siskiyou Kid's campaign to destroy the diaphragms known as culverts that are inserted to sterilize flowing streams is highly commendable, because of the masochistic amount of time and effort he puts into the task he should change his name to Sisyphus.

The Kid should follow an easy, time-proven method by going to a surplus store where he isn't known and picking up a weather balloon. This, along with either a CO2 cartridge or a bicycle handpump should do the trick for round culverts. The balloon is inserted into the aperture and inflated. If the culvert is not round, then the holes left at the corners of the balloon must be packed with old pillows or any material that can be kneaded into four big wads. One disadvantage to this method is that sticks carried by flood waters can puncture the balloon. Use this method at other times, when non-flood flow can be expected.

–Floyd Flood

Dear Ned

US News & World Report had a report last year on a proposed "soft" anti-tank weapon – an acetylene grenade. "When sucked into the air intake of a diesel at a concentration of as little as 1 percent, the gas would cause the fuel in each cylinder to ignite prematurely, with enough force to break the piston rods." Monkey-wrenchers can purchase acetylene in "Benzomatic" sized tanks. A balloon filled with acetylene could be placed in the air cleaner assembly of a diesel engine (bulldozer, logging truck, etc.). When the engine is started, the balloon will break as it is sucked into the induction system. This will release more than a 1% concentration.

WD-40 will dissolve fingerprints from any surface. It can be used to clean tools or road spikes before use, or clean up after the fact before you leave. Small spray canisters are available.

Super glue is the best way to jam a lock, especially a cylinder lock. Tooth picks placed in the slot are usually pushed aside or can be retrieved with a small pick. After super glue is put in a lock, you cannot even hammer the key into the slot. It is fast and easy. Super glue must have some moisture in order for it to set. In areas of very low humidity, you need to merely blow into the slot first to make it damp enough in the lock for the super glue to set. After super gluing, the lock cannot be repaired.

"Score" hair gel and HTH (swimming pool cleaner) are better segregated in Zip Lock bags. (See page 233 in the second edition of **ECODEFENSE** for full instructions on this delayed fire-starting technique.) You can use a small bag tie to keep them apart in transit. The bag won't tear like an envelope when mixing. The reaction is totally exothermic, so no air is necessary for the reaction to proceed. If the chemicals are cool, you have more escape time, especially if you are going to float a bag in a fuel tank – which will cause the tank to explode and the vehicle to burn (be sure no one is around if you do this since injury is possible).

–Crawdad

Dear Crawdad

Good suggestions. Thanks! Anyone contemplating the use of "Score" and HTH in a fuel tank should be absolutely certain that there is no chance of anyone approaching the fuel tank before the mixture ignites. This is potentially dangerous and should be used only when all other methods fail or are inappropriate.

–Ned

Dear Ned

Does anyone know how to make a skeleton key that works? Many big, yellow machines have locks on the engine compartments. If you could unlock them with a skeleton key, add abrasive materials to the vital fluids, and lock them up again without leaving a trace, the operators would likely not suspect a thing and start them right up. This could be invaluable for a number of other targets.

Does anyone know about the various kinds of detectors and how often they are used to protect heavy machinery?

–Lizard

Can anyone out there help Lizard with his questions on skeleton keys (or lock picking?) and detectors?

–Ned

Dear Ned

If you need to add an artistic touch to a sign, building, billboard, etc., do it the easy way. Use fragile Christmas tree ornaments! Take the hooks out of the red and silver balls. Fill with paint (red is the most effective). Duct tape the opening, and *presto!* A paint hand grenade.

–Vincent Van GopherIt

Dear Ned

The US Forest Service is spiking trees! At least 2 districts of the Inyo National Forest on the east side of the Sierra are spiking (with 16 penny nails) old Jeffrey Pine snags to keep them from being cut down by firewood collectors. They are also nailing signs to the snags informing people that they are necessary for wildlife habitat. The Inyo says they have a lot of snags to spike. Perhaps EF!ers could volunteer? Hands-on training!

–Inyo

Dear Ned

My experience in using 60d spikes in pine, fir and spruce is that they can be de-headed prior to driving them. This eliminates the necessity of carrying bolt cutters in the field.

I always bring a punch to drive the de-headed nails below the surface of the tree. This makes removal nearly impossible.

A note on using alcohol to sterilize nails in order to prevent introducing disease into the tree: I bring a one pint container of alcohol and an empty one pint wide-mouth container which is long enough to accommodate the spikes I am using. I fill the empty container with spikes and then cover them with alcohol. I let them sit a minute or two (which provides a welcome rest during a hard day of pounding) and then pour the alcohol back into the original container. I repeat as necessary. In this way, one pint of alcohol can sterilize hundreds of nails. Also, de-heading the nails at home enables me to fit more of them into the container.

I use a fanny pack to carry my spikes. The weight is easier to carry on the hips than on the back. During the actual spiking activity, I put the fanny pack in front to use it like a carpenter's apron.

I hope these suggestions will make everyone's spiking more enjoyable and efficient.

–Carpenter turned ecoteur

Dear Ned

Recommendations for using super-fine rock polishing grit as an engine oil "additive" may be of limited value. To be effective within most engine tolerances (the spaces between moving parts where abrasives go to work), this grit should probably not be smaller than 20 microns or a one-thousand (1000) grit. Certainly no number higher than a twelve-hundred (1200) grit should be considered.

The reason fine sand works as well is that, when used in sufficient amounts, it ultimately clogs the oil filter, opening a bypass that pumps unfiltered oil into the moving parts. Several handfuls in a large engine can work their magic on even a new filter.

–Mr. Science

Dear Ned

A recent arrest in Utah shows how law enforcement relies on evidence like footprints. Ecodefenders must never let their curiosity leave incriminating footprints near heavy equipment and the like. You can get stuck with something you didn't do.

I steer clear of such temptations unless I have a serious purpose in mind. To be ready on a moment's notice, I buy different brands of cheap canvas shoes. The newest pair goes into my backpack. I use them for fording streams, but I back into the stream with them on and erase the footprints behind me. Once my hiking boots are back on, I smear out the canvas shoe prints on the bank where I exit the stream. This way, I can be ready for a spur-of-the-moment hit, knowing that I left no prints behind me that can be linked to the scene.

Once a pair of these ten-dollar shoes have left their prints at a hit, I never carry them again in daytime when escape is difficult. They are then reserved only for nighttime escapades, and not even worn around the house (I don't want to leave nasty old footprints in the flower bed by mistake).

Out here in hostile territory where redneck cops can get a search warrant quicker than a turd gets flies, these shoes are either stashed in the backwoods or put in specially-built hiding places inside the homestead.

–Elmer R.

Dear Ned

The growing popularity of monkey-business is also making it more dangerous. Here's a safe method of approach that has proven effective for day or night, by one person or a group.

1) Always observe from a distance first. Because daytime is riskier, stay well away

and use binoculars. Day or night, hide in deep shadow and don't let shiny or brightly colored objects betray you. Watch for as long as you can, especially if a parked vehicle nearby might indicate a watchman in the area.

2) If all appears quiet, you're ready to do a "walk-by" to either spot a watchman or trip an ambush. We usually put on our new monkey shoes at this point, but carry nothing incriminating. The idea is to be clean if you're stopped. Quietly, but out loud, practice the casual and friendly answer you'll give when confronted. All scouting is done as hikers, birdwatchers, young lovers and the like.

3) Walk past – but not through – the target area, glancing about casually (in daytime from behind sunglasses) for sign of trouble. If no one confronts you, sit down a short distance away and continue to look and listen.

4) If you are still uncertain, be extra safe by doing a dry run to trip an ambush. Pause at the target, like a bulldozer, and pretend to be doing something to it. Do not actually touch it. If caught at this point, you can just explain that you've always liked big machines and were curious. No crime has been committed.

5) Since the Freddies will read about this, we'll add a final step of leaving the immediate vicinity and hiding nearby to see if anyone emerges to see whether we've actually done any damage. Or have a hidden lookout watch.

6) If all is still clear, it's time to go to work.

–Safety First

Dear Ned

I read in the *Journal of Forestry* (Jan. 1988) that the Forest Service is revising their timber sale contracts to allow for the modification or termination of contracts with compensation for such action in cases involving monkeywrenching.

–Ohia

Does anyone know if these guidelines were revised? What are the provisions for monkeywrenched timber sales? Any information would be appreciated so we can publicize it here.

–Ned Ludd

Dear Ned

The Washington state legislature passed a law (SB 6195) this year which makes tree spiking a class C felony; possession of any materials that could cause damage to saws or equipment, with intent to cause personal injury, is a gross misdemeanor. In addition to criminal penalties, a person convicted would also be liable for property damage or personal injury caused by the action.

–Mary Margaret

What is the status of anti-tree spiking or other anti-monkeywrenching legislation in other states? Please send us reports on your states (enclose copies of the laws, if possible) and we will present a full report in an upcoming "Dear Ned Ludd."

–Ned

Dear Ned

The Forest Service, in testimony to Congress this spring, said that current law does not give them authority to pursue suspected marijuana growers operating on National Forests if they escape to private property, and that FS law enforcement agents cannot conduct investigations and interviews off National Forest land or execute search warrants on private property. Presumably, this would apply to suspected monkeywrenchers as well.

–Hayakawa

Does anyone have additional information on this? Does anyone know if Congress is considering legislation to expand the FS law enforcement powers? Does this restriction apply to suspected monkeywrenchers, too?

–Ned

Dear Ned

Besides butyric acid, caproic, capryllic and caproanic acid all smell like goat. I'm not sure about their lasting power, though. One standout in the field is n-butyraldehyde, a sublime melange of vomit, goat, sweat socks, babyshit and bilgewater. As long as we're going out into the field and ruining backhoes and earthmovers, why not try n-butyraldehyde there? In the engine block of a Caterpillar (or an executive limo or lear jet) it does not go away. A drop or two of this stuff will last for six months or more. Almost no one would be willing to drive a machine which smelled like n-b, and the resale value is nought. By the way, the suggestion in **ECODEFENSE** that a quart of butyric acid would be sufficient for the chemo-raider was mind-boggling! Isovaleric acid is even more revolting than n-b.

—Housebound

Dear Ned Ludd,

A recent suggestion that leather gloves are superior to cotton for monkeywrenching security warrants detailed examination. Because leather is cow skin, it has a grain as unique as a human fingerprint. A good "gloveprint" can be positively linked to a specific glove taken from a suspect. The cotton glove is a woven material whose prints might be linked to a certain manufacturer, but only anomalies like tears or manufacturing flaws will connect them to a specific glove.

Most importantly, you can purchase cotton work gloves cheaply. A busy wrencher can easily buy and properly dispose of several pairs a year, rather than be tempted to keep expensive leathers for "one more job." The thinnest cotton gloves (like photographers use) might on rare occasions leave a fingerprint, but heavier cotton work gloves will not. To further confound law enfarcement, buy a different brand of glove each time, and *never* dispose of evidence at or near the scene of a hit.

—Ben There

ECODEFENSE SUPPLEMENT STATUS REPORT

As previously announced, a *Supplement* to the second edition of *ECODEFENSE: A Field Guide to Monkeywrenching* is being planned for publication early in 1989. If you have additions, corrections, modifications or other useful information for ecodefenders, please send to Ned Ludd, c/o Earth First!, POB 5871, Tucson, AZ 85703 by January 1, 1989. We have already received much good material. Thanks to all of you who have sent in suggestions.

MONKEY WRENCHING NEWS FROM AROUND THE WORLD

ALASKA & YUKON BILLBOARDS CUT – On Nov. 30, 1987, 59 billboards were cut down on the Klondike and Alaska Highways near Whitehorse, Yukon. "This crime was a well-organized crime. It's not a bunch of drunks out there cutting down signs. We're talking a group of people who plan what they're going to do and do it effectively," said a spokesman for the Royal Canadian Mounted Police. Over Easter weekend, 1988, 9 billboards advertising businesses in the Haines, Alaska, area were felled.

DENVER WATER BOARD GRAFFITIED – Slogan painting (estimated to cost the Denver Water Board $2,000 to erase) hit the dams and intake valves on Vasquez and St. Louis Creeks in August. Slogans included "Thieves – a living river dies here for lawns in Denver."

ATLANTA FURRIERS HIT – ALF (the Animal Liberation Front) took responsibility for spattering windows of Atlanta Furs and Toni Lucci Furs in Atlanta, GA, with eggs containing glass etching fluid. The glass etching fluid, which is available at most stained glass supply companies, ruined the large windows. They will have to be replaced.

LOGGERS HIT IN VERMONT – Moffatt Forest Products, an outfit that strips woodlands in Vermont to make chips for burning in electrical power plants, suffered an estimated $100,000 worth of damage to the engines of a truck, loader, chipper and three log skidders when monkeywrenchers "packed the engines with dirt" at a logging site near Marshfield. Police reported no suspects or leads. Another chipping company has been similarly sabotaged twice this year.

TAHOE SPIKING – Over 100 trees in a 202 acre timber sale south of Truckee have been spiked, according to the Forest Service. Karen Jones, the timber manager for the Ranger District involved, blamed it on "sick people who don't want the trees to be sold." Jones claimed the Forest Service was "aggressively investigating" the case and had offered a $10,000 reward, but admitted there were no suspects. She also said this was the first spiking in the area.

TAHOE BOMB THREAT – The Tahoe NF has closed 300 acres scheduled to be clearcut in the Deep Creek area after receiving a letter saying the area had been rigged with explosives. This came a month after notice was given of spiking in the same area. District Ranger Joanne Roubique lamented the closure, saying "Deep Creek is a real pretty creek. A lot of people like to walk back in there and see the creek." Evidently she feels they don't care about seeing the trees.

HUMBOLDT STATE DOZERS WRENCHED – Students returning to Northern California's Humboldt State University after summer vacation were aghast to find a redwood forest behind the campus devastated by bulldozers and chainsaws. The logging was to pay for a new ballpark in Arcata, although the town already has one. Up to $150,000 worth of damage was done to the offending bulldozers by students infecting them with sand and valve grinding compound.

AUSSIES TRASH DOZERS – Over $1 million in damage has been done and about 20 bulldozers have been put out of action at logging operations in the Australian state of Victoria. Tree spiking has also become common in the East Gippland, Central Highlands and Otways forests. The spokesman for the Victorian Sawmillers Association attributed the monkeywrenching to "whackos." He also blamed mainstream Australian conservation groups for publicizing ecotage by printing an interview with Dave Foreman in the magazine *Habitat* in 1986. The director of the Australian Conservation Foundation said that while no mainstream conservation group was involved, neither did they need to repudiate every "anti-social activity."

Please send newspaper clippings and other notices of monkeywrenching anywhere in the world to Ned Ludd, c/o Earth First!, POB 5871, Tucson, AZ 85703. Please indicate name of publication and date published on the clipping.

Refuges . . .

Continued from page 23

improve their ability to sustain all wildlife species, including target species like the Sandhill Crane, grazing continues to be one of the prime impacts Refuge managers accept.

Great savings – both economic and ecological – would be won by eliminating livestock grazing from our Wildlife Refuges. On those Refuges where vegetation manipulation is essential, managers may have to learn to utilize natural ecological forces such as fire, or import native grazing animals like Bison. Any higher costs associated with these methods would be negated by the aesthetic and ecological benefits of having native wildlife. Plus we could eliminate most or all range "improvements" such as cattle guards, water troughs, fences, hayfields and irrigation ditches.

Ultimately, it comes down to a question of why we have set up these Refuges. Are they for cows; or for Elk, deer, ducks, cranes, Meadow Voles, and, yes, Coyotes too? For now, it may be necessary to occasionally manipulate the wildlife or environment on our Refuges to compensate for factors beyond their borders. Even if livestock grazing and haying operations were eliminated from the Malheur Wildlife Refuge, for instance, limited predator control might still be necessary because of conditions on adjacent private lands; but first, all other variables and possible impacts should be fully investigated. [Ideally, of course, the adjacent private lands should be purchased and added to the Refuge, thus eliminating the problems associated with livestock grazing. In these days of budget austerity, however, such purchases are highly unlikely.]

There is something fundamentally wrong with a refuge system when it is politically easier for its managers to shoot, poison or trap wildlife on refuges than it is for them to eliminate or reduce domestic livestock grazing. This is the case for most of our western National Wildlife Refuges. Until this changes, our Wildlife Refuge system will not realize its potential or its philosophical mandate to provide a sanctuary for our nation's wildlife.

WHAT YOU CAN DO:

Write to your senators (US Senate, Washington, DC 20510) and representative (House of Representatives, DC 20515), and to the Secretary of Interior (Interior Dept, 18th & C Sts, NW, DC 20240), and the Director of the Fish & Wildlife Service (c/o Interior Dept) expressing your wish that all National Wildlife Refuges truly be protected as sanctuaries for wildlife. Say that this entails removing domestic livestock grazing and haying operations from our Refuges. Ask their support for reintroduction of extirpated species and preservation as Wilderness for Refuge lands.

George Wuerthner is a wilderness explorer and writer living in Montana. He contributes regularly to our pages.

NATIONAL WILDLIFE REFUGES OF THE WEST: A PRIMER

Teddy Roosevelt set aside the first National Wildlife Refuge by executive order in 1903. During his administration, 52 more Refuges followed Florida's five acre Pelican Island, and by the time he left office, Roosevelt had secured the National Wildlife Refuge System as an American institution. Today it encompasses approximately 90 million acres.

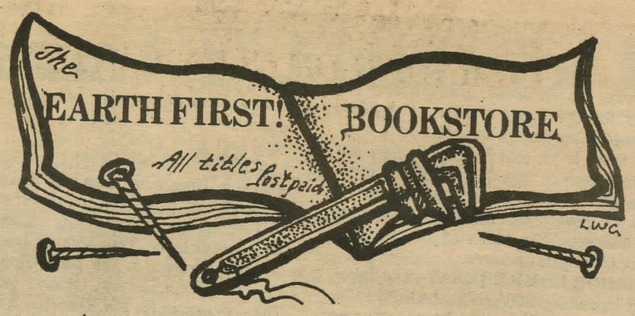
There are approximately 230 Wildlife Refuges in the western half of the national system (all states west of the Mississippi River, excepting Alaska but including Hawaii and some Pacific Islands). Stump Lake Refuge in North Dakota and Wichita Mountains Refuge in Oklahoma were among the earliest created in the West; both were set aside in 1905. Among the largest are Desert NWR in Nevada (1,533,818 acres), Charles M Russell in Montana (898,250), and Arizona's Cabeza Prieta (860,000) and Kofa (660,000). By comparison, the largest Refuge in the eastern US is Florida's Arthur R Marshall Loxahatchee (145,635 acres). Most of Alaska's Refuges are over a million acres in size and the two largest, Arctic and Yukon Delta, both exceed 19 million acres.

Refuges are still being created. One of the largest NWRs in the West, Buenos Aires in Arizona (111,506 acres), was established in 1985, and Midway Atoll (90,097) was declared in April of this year.

Conflicting with the use of Refuge lands by wildlife, many Refuges in the West provide forage for livestock. Out of 109 Refuges in Region 6 (Montana, Wyoming, Colorado, Kansas, South Dakota, North Dakota, Nebraska, and Utah), all but six currently have livestock grazing. Grazing occurs on about half of the 32 Refuges in Region 2 (Arizona, New Mexico Texas, and Oklahoma), and 37 out of 227 Refuges in Region 1 (California, Hawaii, Idaho, Nevada, Oregon, Washington, and Pacific Islands). Each Refuge sets its own grazing fees, which usually range between $4 and $8 per AUM. Buffalo Lake NWR in Texas charges $13 per AUM, probably the highest public lands grazing fee in the country. Detailed information on whether the costs of grazing programs are covered by the fees is not readily available, but according to one official in Region 2, "grazing is used strictly as a management tool," and is thus seen as bringing returns beyond the merely monetary.

There are five ways in which a NWR may be established. Teddy Roosevelt used executive withdrawal during his administration. Refuges created to perpetuate Endangered species, and lands acquired for recreation and other purposes, can be financed by the Land and Water Conservation Fund. This money comes from offshore oil and gas leasing revenues. The Migratory Bird Conservation Account provides monies for the creation of Refuges for migratory birds. The sale of duck stamps provides the revenues for this fund. Refuges that are not designed primarily to protect migratory birds or Endangered species can be established through an act of Congress. Finally, the Secretary of Interior may accept donations of land for Refuge purposes.

–Mollie Matteson, Livingston, MT



Annotated and Introduced by Dave Foreman

For a bunch of Neanderthals, Earth First!ers are a literate lot. Not only do we voraciously read books, but a growing number of us are writing them. In this issue we highlight new books by Earth First!ers. Because these authors (Ed Abbey, Dolores LaChapelle, Bill Devall, Greg Keeler and Andy Schmookler) are well-known to the readers of this journal, the descriptions below (in "New Books") are short. This does not discount the importance or the quality of these works. I highly recommend each. The books by LaChapelle and Devall are reviewed in this issue, and we present an excerpt from Schmookler's new work.

Also take a look at "Earth First! Music" for a newly arranged and re-recorded tape by Katie Lee — "Colorado River Songs." Katie was an Earth First!er when I was a Boy Scout. T.S. Eliot wrote that "the river is a long brown god." In my view, the river is a long brown goddess and Her name is Katie Lee.

This issue (Mabon) and the next (Samhain) represent our annual Yule gift buying frenzy hype. Sales of our books, tapes, t-shirts, bumperstickers and other snake oil & trinkets mushroom during the fall. These sales help support the publishing of The Earth First! Journal *through the lean days of winter. I can't think of a better Yule gift for anyone than one or several of the books and/or tapes we offer through the mail. I encourage you to do your Yule shopping here. (No crowds to elbow through, either.)*

Full descriptions of all of the books and tapes we sell will be printed in the Samhain issue. The last complete listing was in Litha (June) for books and Lughnasadh (August) for tapes.

All prices below are postpaid. Order directly from Earth First!, POB 2358, Lewiston, ME 04241. Good reading!

NEW BOOKS

A FOOLS PROGRESS

By Edward Abbey. Yes, it's finally out! Cactus Ed's first novel since "Good News," "A Fools Progress" is a major work of American fiction. Moreover, Ed has donated 50 copies to us and has signed them as a fundraiser for the *EF! Journal*. Hardcover, $22

SACRED LAND SACRED SEX:
Rapture of the Deep

By Dolores La Chapelle. I would argue that Dolores LaChapelle is the most creative and insightful deep ecologist writing today. Many of us have long awaited her new book, and it fulfills our expectations. Reviewed in this issue. Oversized, soft cover, 383pages, $24.50.

SIMPLE IN MEANS, RICH IN ENDS:
Practicing Deep Ecology

By Bill Devall. Devall's new book follows up on "Deep Ecology" (which is one of the most popular books we offer) with this broad-based study of how to cultivate a Deep Ecology life style. Reviewed in this issue. $12.50.

AMERICAN FALLS

By Greg Keeler. Greg is well known to Earth First!ers through his music tapes (see EF! Music) and his performances at the Round River Rendezvous and other events. This fine volume of poetry has the same bite and sparkle that his songs do. 100 pages, paperback, $9.50.

OUT OF WEAKNESS:
Healing the Wounds That Drive Us to War

By Andrew Bard Schmookler. Schmookler's previous book, "Parable of the Tribes," was a study of the origins of conflict between groups of people. In this follow-up study, he considers the human psyche and its relation to war and violence. Excerpted in this issue. Andy is a frequent contributor to this journal, and always controversial. 320 pages, paperback, $13.

THE MONKEY WRENCH GANG By Edward Abbey. Paperback. $6.

DESERT SOLITAIRE By Edward Abbey. A superb 20th anniversary edition of Abbey's masterpiece, with evocative illustrations, from the University of Arizona Press. This fine hardcover edition is a collector's item and no fan of Abbey should be without one. Signed for Earth First! by Cactus Ed, himself. 255 pages, hardcover, $28.

DESERT SOLITAIRE By Edward Abbey. Paperback, $4.50

FREEDOM AND WILDERNESS "Edward Abbey Reads From His Work" 2 cassettes (2hrs. 52 minutes). $18.50 postpaid first class.

BEYOND THE WALL "Essays From The Outside" by Edward Abbey. $9

THE JOURNEY HOME "Some Words in Defense of the American West" by Edward Abbey. Illustrated by Jim Stiles. $10

SLICKROCK By Edward Abbey and Phillip Hyde. $27

ONE LIFE AT A TIME, PLEASE By Edward Abbey. $9

RESIST MUCH, OBEY LITTLE "Some Notes on Edward Abbey" edited by James Hepworth and Gregory McNamee. $9

LAND OF LITTLE RAIN By Mary Austin with an introduction by Edward Abbey. $8

BLUE DESERT By Charles Bowden. $19.50

FROG MOUNTAIN BLUES The latest from Charles Bowden with photographs by Pulitzer Prize winning photographer Jack Dykinga. $22.50

KILLING THE HIDDEN WATERS "The Slow Destruction Of Water Resources In The American Southwest" by Charles Bowden. $9

THE GRIZZLY IN THE SOUTHWEST "Documentary of an Extinction" by David E. Brown, with a foreword by Frank C. Craighead, Jr. Hardcover. $22.

THE WOLF IN THE SOUTHWEST "The Making of an Endangered Species" David E. Brown, editor. $11

STATE OF THE WORLD 1988 "A Worldwatch Institute Report on Progress Toward a Sustainable Society" by Lester R. Brown et al. $12.

TOPSOIL AND CIVILIZATION Revised edition, by Vernon Gill Carter and Tom Dale. $13.

OVERSHOOT "The Ecological Basis of Revolutionary Change" by William R. Catton, Jr. I was unaware of this seminal book until the folks at *Fifth Estate* brought it to my attention. I agree with Vine Deloria, Jr. who writes about it: "One of the most important books I have read in my lifetime." Catton lucidly applies ecological concepts to the human condition, and coins piercing new terms to describe our situation ("Cargoism: delusion that technology will always save us from Overshoot: growth beyond an area's carrying capacity, leading to Crash: die-off.") This is admittedly not a happy book, but Catton expertly demolishes the fantasies of the Cargoists, Cosmeticists, Cynics and Ostriches to demonstrate that we have indeed surpassed our carrying capacity. After Aldo Leopold's *A Sand County Almanac*, this is the book I most strongly recommend. (If you believe the humanist bunk that Malthus was wrong, you definitely need to read it!) Index, glossary, references, 298 pages, paperback. $12

THE PATHLESS WAY By Michael Cohen. $14.50

ECOLOGICAL IMPERIALISM "The Biological Expansion of Europe, 900 - 1900" by Alfred W. Crosby. Why has Europe been so successful during the last thousand years? Crosby, a prominent University of Texas history prof, synthesizes old and new information, to at last answer this key question of recent history. He argues that the Azores/Canaries, North America, Argentina, Australia and New Zealand have become "Neo-Europes" through a combination of European people, disease, domesticated plants and animals, pests and weeds. Indeed, he convincingly argues that it was not military or economic might (or ideology) so much as biology that Europeanized these lands. This book is a first step toward a history of the world environment and shows how the environment is a continual and active participant in human affairs. Fascinating! Index, references, maps, illustrations, 368 pages. $13

DEEP ECOLOGY "Living As If Nature Mattered" by Bill Devall and George Sessions. This groundbreaking book presents the philosophical fundamentals for the defense of Earth, discussing biocentrism, intrinsic value, and ecological resisting. Appendices by Dolores LaChapelle, Gary Snyder, John Seed, Carolyn Merchant, Robert Aitken, and Arne Naess. 263 pages, paperback. $11.50

THE NATURAL ALIEN "Humankind and Environment" by Neil Evernden. $14

THE ARROGANCE OF HUMANISM By David Ehrenfeld. Ehrenfeld is a Professor of Biology and one of the founders of the Society for Conservation Biology. In this powerful book, he explodes the myths of humanism (the dominant world-view) such as: all problems are soluble by people using either technology or social sciences; resources are either infinite or have infinite substitutes; human civilization will survive. He demonstrates the problems of rationality, argues convincingly for emotion, and then moves to analyze arguments for the preservation of natural diversity and concludes that only those based on intrinsic value, and not economics or human benefit, are valid and even politically practical. As with Catton's book, the christians, marxists and capitalists will howl, but he's right on all counts. This is an absolutely fundamental book for Earth First!ers. Index, references, 286 pages, paperback. $12.50

TROPICAL NATURE "Life and Death in the Rain Forests of Central and South America" by Adrian Forsyth and Ken Miyata. $9

THE AMERICAN CONSERVATION MOVEMENT "John Muir and His Legacy" by Stephen Fox. $16.50

STERILE FOREST "The Case Against Clearcutting" by Edward C. Fritz. Special discounted price of $6.50

PROMISED LAND "Adventures and Encounters in Wild America" by Michael Frome. Originally priced at $18.95. Signed by Mike Frome. $12 as a special for EF!ers.

WHOSE WOODS THESE ARE "The Story of the National Forests" by Michael Frome. $10

BATTLE FOR THE WILDERNESS By Michael Frome. This extremely important book by America's leading environmental journalist is quite simply *the* history of the political struggle to preserve the American Wilderness. We can learn much from the struggles of the past and apply such lessons to good advantage in our struggles today. Frome's book was originally written for The Wilderness Society in the mid-1970s. We are offering a reprint from Westview Press at a considerable discount from their regular price, thanks to Mike's generosity and our desire to get this into the hands of more EF!ers. A new preface updates it. Paperback, 240 pages, references, index. $20

A WILDERNESS ORIGINAL "The Life of Bob Marshall" by James M. Glover. $20.50

CRY WOLF! By Robert Hunter and Paul Watson. $9

THE GIFTING BIRDS "Toward An Art Of Having Place And Being Animal" by Charles Jones. $18.50

FEAR AT WORK "Job Blackmail, Labor and the Environment" by Richard Kazis and Richard L. Grossman. Special discounted price of $9.50

EARTH FIRST "The Struggle to Save Australia's Rainforest" by Jeni Kendell and Eddie Suivids. This beautiful book documents the campaign to preserve Aussie rainforests through nonviolent direct action. It is a major historical document of the radical conservation movement, and a source of inspiration to tree-huggers everywhere. 167 pages, color photos, hardcover, $25

EARTH WISDOM By Dolores LaChapelle. $15.50

BEAR MAGIC A chapbook by the National Grizzly Growers. $3.50

ALWAYS COMING HOME By Ursula K. LeGuin. $6

A SAND COUNTY ALMANAC By Aldo Leopold. $9.00

COMPANION TO A SAND COUNTY ALMANAC "Interpretive & Critical Essays" edited by J. Baird Callicott. $14.50

ARCTIC DREAMS By Barry Lopez. $6

OF WOLVES AND MEN By Barry Lopez. $16.50

THE SNOW LEOPARD By Peter Matthiessen. $5

NEVER CRY WOLF By Farley Mowat. $4.50

SEA OF SLAUGHTER By Farley Mowat. A landmark study of the historic and on-going destruction of wildlife (seabirds, other birds, bears, wolves, fish, whales, seals) along the northern Atlantic seaboard of North America. *USA Today* says that "*Sea of Slaughter* deserves to stand with Rachel Carson's *Silent Spring* as an outstanding indictment of man's stupidity in alienating himself from nature." Paperback, 437 pages, $11.50

A WHALE FOR THE KILLING By Farley Mowat. $5.00

THE DESERT SMELLS LIKE RAIN "A Naturalist in Papago Indian Country" by Gary Paul Nabhan. $10

GATHERING THE DESERT By Gary Paul Nabhan with illustrations by Paul Mirocha. $16.50

WILDERNESS AND THE AMERICAN MIND By Roderick Nash. $13.50

REFORMING THE FOREST SERVICE By Randal O'Toole. As Director of CHEC (Cascade Holistic Economic Consultants), O'Toole has been a continual thorn in the side of the Forest Service. The reason is simple: he's smarter than they are and has relentlessly exposed and dissected inefficiency, incompetence, and stupidity in their planning and operating. In this ground-breaking book, he proposes sweeping reforms in the structure of the agency and new budgetary incentives as the best way to improve management. This book is a must for serious EF! National Forest activists, even though they may not agree with all of it. 250 pages, graphs, tables, notes. Paperback, $18.50.

DOLPHIN LEAPING IN THE MILKY WAY By Jeff Poniewaz. $8

JAGUAR "One Man's Struggle to Establish the World's First Jaguar Preserve" by Alan Rabinowitz. $22.50

CADILLAC DESERT "The American West and Its Disappearing Water" by Marc Reisner. $11

ENVIRONMENT, DEVELOPMENT & NATURAL RESOURCE CRISIS IN ASIA & THE PACIFIC From SAM (Sahabat Alam Malaysia — Friends of the Earth Malaysia). $16.50

FOREST RESOURCE CRISIS IN THE THIRD WORLD From Sahabat Alam Malaysia (Friends of the Earth Malaysia). The proceedings from the Conference on Forest Resources Crisis in the Third World provide a comprehensive overview of tropical timber cutting. All tropical rainforest activists should get a copy of this report. Illustrated, 510 pages, paperback. Proceeds to SAM, the leading conservation group in the Third World. $20.

MOUNTAINS WITHOUT HANDRAILS "Reflections on the National Parks" by Joseph L. Sax. $9.50

PARABLE OF THE TRIBES By Andrew Bard Schmookler. $11.50

DESERTS ON THE MARCH Fourth edition by Paul B. Sears. Hardcover. $20.

NED LUDD BOOKS RELEASES

(Published by Ned Ludd Books and available from Earth First! at a 40% discount plus shipping for wholesale prepaid orders of 5 or more.)

THE EARTH FIRST! LI'L GREEN SONGBOOK

78 terrific Earth First! songs by Johnny Sagebrush, Cecelia Ostrow, Bill Oliver, Greg Keeler, Walkin' Jim Stoltz and others from Australia and America. Guitar chords are included with most songs. An absolute must for every true-green EF!er to sing along with our minstrels or to play the songs yourself. Dealer inquiries welcome. $6 postpaid, $4 postpaid special to *Earth First!* subscribers only! ($3 plus shipping for wholesale orders of 5 or more).

ECODEFENSE

"A Field Guide to Monkeywrenching — 2nd Edition" edited by Dave Foreman and Bill Haywood with a Forward! by Edward Abbey. Greatly expanded and revised to 308 pages of detailed, field-tested hints from experts on Tree-spiking, Stopping ORVs, Destroying Roads, Decommissioning Heavy Equipment, Pulling Survey Stakes, Stopping Trapping, Trashing Billboards, Hassling Overgrazers, Leaving No Evidence, Security ... and much more. Heavily illustrated with photographs, diagrams, and cartoons. $13.50 postpaid ($7.20 plus shipping for wholesale orders of 5 or more).

THINKING LIKE A MOUNTAIN "Towards a Council of All Beings" by John Seed, Joanna Macy, Pat Fleming and Arne Naess. Illustrated by Dailan Pugh. This book of readings, meditations, poems, rituals and workshop notes prepared on three continents helps us remember that environmental defense is nothing less than "Self" defense. Including magnificent illustrations of flora and fauna from the Tasmanian rainforest, this book provides a context for ritual identification with the natural environment and so invites us to begin a process of "community therapy" in defense of Earth. Facilitating a process for allowing us "to hear the sound of the earth crying" as our own cry, it is an important deep ecology educational tool for use in schools, community groups and elsewhere for personal reflection. 128 pages, references, paperback. $9.50

CONSERVATION BIOLOGY "An Evolutionary-Ecological Perspective" edited by Michael E. Soule and Bruce A. Wilcox. An anthology of important papers by leading researchers in four parts: Ecological Principles of Conservation, Consequences of Insularization, Captive Propagation and Conservation, and Exploitation and Preservation. Raymond Dasmann writes, "I believe *Conservation Biology* is one of the most important books on conservation that is now available. If I had my way it would be required reading for everyone actively concerned with conservation." If you want the best scientific ammunition for a preservationist point of view, here it is — fully loaded. 395 pages, index, bibliography, paperback. $26.50

CONSERVATION BIOLOGY "The Science of Scarcity and Diversity" edited by Michael E. Soule. This is a follow-up to the previous "Conservation Biology" (see above) and is just as important, with 25 chapters by leading experts covering Fitness & Viability of Populations, Patterns of Diversity and Rarity: Their Implications for Conservation, The Effects of Fragmentation, Community Processes, Threats and Management of Sensitive Habitats and Systems, and Dealing With the Real World. A must for serious defenders of natural diversity. 584 pages, index, bibliography, paperback. $29.50

THE OLD WAYS By Gary Snyder. $5.50

THE SPIRAL DANCE By Starhawk. $12

THIS IS DINOSAUR "Echo Park Country and Its Magic Rivers" edited by Wallace Stegner. $10

THE WHISPER BEHIND THE WIND By Walkin' Jim Stoltz. A collection of poetry by a longtime EF! musician. These are words inspired by open skies, wild creatures, and cross-country hikes longer than most of us will ever attempt. Songs from the heart and the land. Paperback, 44 pages. $7.50

WALDEN By Henry David Thoreau with a major introductory essay by Edward Abbey — "Down The River With Henry Thoreau." Paperback, 303 pages, $7.50

WILDERNESS VISIONARIES By Jim dale Vickery. $12.

CRACKING OF GLEN CANYON DAMN MOVIE

The excellent 10 minute, color-sound 16mm movie of Earth First! cracking Glen Canyon Damn in 1981 starring Ed Abbey and Johnny Sagebrush. An inspiring and humorous introduction to the Earth First! movement. Rental fee of $25 plus first class postage for showing to groups; no rental fee (postage only) for EF! groups. Note: rental only; not for sale.

OVERGRAZING SLIDE SHOW

A new slide show, "The Eating of the West," graphically displays the devastation of Western public lands at the hands (and hooves) of the livestock industry. The show consists of over 100 high-quality slides from National Forests, National Wildlife Refuges, and BLM lands which portray the shocking magnitude of the problems caused by grazing. The slide show comes with a written script and is rented at cost, $10. Free copies of a 48-page tabloid on grazing are also available. Please include with your order the name and phone number of a contact person, and the date you need the show along with alternate dates. "The Eating of the West" was funded by donations to Lynn Jacobs and the Earth First! Foundation.

TRINKETS

SILENT AGITATORS

Fun to stick anywhere – bar bathrooms, Freddie offices, trail registers...wherever the evil ones need to know that we are about and watching.

EARTH FIRST! FISTS

Green EF! fist logo with words "EARTH FIRST! No compromise in defense of Mother Earth" in red ink. 1 5/8 inch diameter circles. **30 for $1.25 postpaid.**

ANTI-GRAZING

A grazing cow and barbed wire with the universal "no" slash, and the words "Free Our Public Lands!" and "Stop Destructive Welfare Ranching End Public Lands Livestock Grazing." 1 5/8 inch diameter circles. **30 for $1.25 postpaid.**

COORS

Spread the word on these villains. Black words on green stickers. 2 x 3 inch rectangles. **10 for $1.25 postpaid.**
Coors is Anti-Earth
Coors is Anti-Women
Coors is Anti-Labor
AND IT TASTES AWFUL!
BOYCOTT COORS

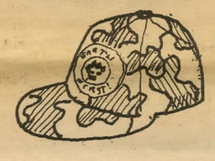
"TOOLS"

The late John Zaelit's Monkeywrench and Warclub design is back by popular demand. Brown design with "Earth First!" in green on 1 5/8 inch diameter white circles. **30 for $1.25 postpaid.**

FREE OUR PUBLIC LANDS!
P.O. BOX 5784, TUCSON, AZ 85703
STOP DESTRUCTIVE WELFARE RANCHING
END PUBLIC LANDS LIVESTOCK GRAZING

CAMO CAPS

We've got a variety of camouflage baseball caps. They come in either woodland or desert camo, 100% cotton or mesh backs. They all have adjustable tabs so one size fits all. The EF! fist logo and the words "EARTH FIRST!" are printed in black. Be sure to specify what style you want or we'll send you what we have most of. $8 postpaid.



NON-CAMO CAPS

For you non-militaristic types out there, we now have a non-camouflage cap – the fist and "Earth First!" in black ink on a tan cotton cap with either cloth or mesh back. One size fits all.
$8 postpaid

WINDOW STICKERS

EARTH FIRST! FIST Green EF! fist with the words "EARTH FIRST! No compromise in Defense of Mother Earth" in green on a 3 inch diameter white vinyl circle. **4 for $1 postpaid.**

NO COWS Cow and barbed wire in black with "universal no" red slash and circle. Words: Free Our Public Lands! Stop Destructive Welfare Ranching End Public Lands Livestock Grazing. 3 inch diameter white vinyl circle. **6 for $1 postpaid.**

EARTH FIRST! EMBROIDERED PATCHES

This embroidered patch features the green fist and the words "EARTH FIRST!" and "No Compromise." Green and black on a white 3" diameter round patch. **$3.50 postpaid.**

HAYDUKE LIVES EMBROIDERED PATCHES

These are black 3 inch diameter round embroidered patches with a red monkeywrench and the words HAYDUKE LIVES in red. **$3.50 postpaid.**

SUBSCRIBE TO EARTH FIRST!

Earth First! The Radical Environmental Journal — is an independent entity within the broad Earth First! movement and serves as a forum for no-compromise environmental thought and action. Subscriptions go to publish this newspaper and to fund a variety of Earth First! actions. Please subscribe or resubscribe today!

Keep us informed of ADDRESS CHANGES! The Post Office will charge us 30¢ for an address correction and won't forward your paper.

GIFT SUBSCRIPTIONS — Introduce others to *Earth First!* and receive the EF! bumpersticker of your choice or 30 silent agitators for each gift subscription you make. Indicate your address and what you would like on the subscription form.

LIFE SUBSCRIPTIONS — Tired of that little red check mark every year? Want to really help Earth First! and insure that you'll get *Earth First! The Radical Environmental Journal* for life (yours or ours, whichever is shorter)? Then become a life subscriber. Send us $400 and you've got it.

Clip and send to: **Earth First!, POB 2358, Lewiston, ME 04241**

____ Here's $20 or more for a one year subscription to *Earth First!*
____ Here's $20 to resubscribe to *Earth First!*
____ Here's an extra $15. Send *Earth First!* First Class.
____ Here's $30 (US funds only). Send *Earth First!* to me First Class in Canada or Mexico or surface mail outside the USA.
____ Here's $45 (US funds only). Send me *Earth First!* Air Mail outside the USA.
____ We are a government agency or exploitative corporation. Here's $75 for a subscription ($100 for First Class mail).
____ Here's $400 or more for a life subscription to *Earth First!*.
____ Please send a gift subscription to the person below. Here's $20 or more.
____ I'm broke. Please send me a subscription for $
____ Please change my address. My old zip code was:

Name _____

Address _____

City _____ State _____ Zip _____

The EF! subscription list is kept entirely confidential. You are welcome to use an alias. Make sure the mailperson knows that James What (or whoever) is getting mail at your address.

EARTH FIRST! TRINKETS

NEW MUSIC

Katie Lee "Colorado River Songs"

Ed Abbey writes of this classic collection of music, "Anyone who loved the living Colorado River (pre-damnation by the swine who run America) will love these songs by pioneer Glen Canyoneer, Katie Lee."

And Katie writes, "In the late '50s and early '60s, protesting anything the Wreck-the-Nation-Bureau did to our rivers was like putting out a forest fire with an eye-dropper. Nobody was listening. The fact that NOW the Barry Goldwater and Stewart Udall types are 'sorry' doesn't make me feel one bit better — their gross mistake is still my sorrow. GLEN CANYON IS GONE and will stay gone until someone blows up that heinous dam or the great old Colorado gets mad enough to kick its ass downstream. Most of these songs were written before, and in protest of, those life-killing plugs and have survived to be added to, re-arranged and parodied by river runners. A few are new. They are LOVE SONGS to a truncated Grand and to those glorious canyons over whose bones the unenlightened multitudes race on a freeway of stagnant water."
$14 postpaid.

"Dana Lyons, Animal"

Dana's long-awaited second tape is finally out! For anyone who has heard him at the RRR, you know he qualifies as one of the best musicians in the country. For those who haven't heard him, you'll just have to buy the tape. Includes: RV, Building One in My City, I am an Animal, I Saw His Body, Music Off The Moonlight, Kevin's Song, Tell Me That You Want To Go, Timebomb, June Is A'Comin, and The Tree. $11 postpaid

Austin Lounge Lizards "Highway Cafe of the Damned" $9 postpaid.

Austin Lounge Lizards "Creatures From the Black Saloon" $9 postpaid.

Darryl Cherney "I Had To Be Born This Century" $9 postpaid.

Lone Wolf Circles "Full Circle" $10 postpaid.

Lone Wolf Circles "Tierra Primera!" "The Deep Ecology Medicine Shows." $10 postpaid.

Dakota Sid "...For The Birds" $9 postpaid.

Dakota Sid "No Mercy" $10 postpaid.

Greg Keeler "Songs of Fishing, Sheep and Guns in Montana" $9 postpaid.

Greg Keeler "Talking Sweet Bye & Bye" $9 postpaid.

Greg Keeler "Bad Science Fiction" $9 postpaid.

Katie Lee "Fenced!" $12 postpaid.

Katie Lee "Ten Thousand Goddam Cattle" $14 postpaid.

Katie Lee "Love's Little Sisters" $12 postpaid.

Dana Lyons "Our State is a Dumpsite" $6 postpaid.

Mokai "Clearcut Case Of The Blues" $9 postpaid.

Bill Oliver "Texas Oasis" $9 postpaid.

Bill Oliver & Friends "Better Things To Do" $9 postpaid.

Cecelia Ostrow "All Life Is Equal" $7.50 postpaid.

Rainforest Information Centre "Night-cap" $10 postpaid.

John Seed, Bahloo & Friends "Earth First!" $9 postpaid.

Jon Sirkis "A Few Less Colors" $9 postpaid.

Walkin' Jim Stoltz "Spirit Is Still On The Run" $9 postpaid.

Walkin' Jim Stoltz "Forever Wild" $10 postpaid.

BUMPERSTICKERS

Unless otherwise indicated, our bumperstickers are green lettering on long lasting white vinyl and are $1 postpaid. *Starred bumperstickers are multi-colored with designs and are $1.25 postpaid.

AMERICAN WILDERNESS * LOVE IT OR LEAVE IT ALONE
(with red, white & blue US flag)

ANOTHER MORMON ON DRUGS

BACK TO THE PLEISTOCENE
(With "Ned Ludd" logo)

BOYCOTT COORS "BEER"

DAMN THE CORPS NOT RIVERS

DARWIN
(letters in evolving fish with legs)

DESERT RAPER
(bright red lettering — a sticker with many uses)

DREAM BACK THE BISON SING BACK THE SWAN

EARTH FIRST!

ESCHEW SURPLUSAGE

HAYDUKE LIVES

HUNT COWS - NOT BEARS

HUNTERS: Did a cow get your elk?

I'D RATHER BE MONKEYWRENCHING
(with Monkeywrench/War Club logo)

IF YOUR PECKER WAS AS SMALL AS MINE, YOU'D NEED A MUSCLE WAGON, TOO!
(Important note: This bumpersticker is — hopefully! — not for your own vehicle, but to surreptitiously paste on a jacked-up muscle wagon you find in the local shopping center parking lot. Don't get caught! These stickers are constructed out of cheap paper with permanent adhesive to maximize the difficulty of removing them. Special price: 12 for $5!)

MALTHUS WAS RIGHT

MUIR POWER TO YOU*
(white and black on brown with face of Muir)

NATIVE*
(blue words with blue, green & white globe)

NATURE BATS LAST

NEANDERTHAL AND PROUD
(With "Ned Ludd" logo)

NO SCOPES! SAVE MT. GRAHAM
(with no scopes logo)

OIL AND BEARS DON'T MIX
(with bear logo)

PAY YOUR RENT WORK FOR THE EARTH

PROTECT OUR ENVIRONMENT STOP PUBLIC LANDS LIVESTOCK GRAZING

REDNECKS FOR WILDERNESS

RESCUE THE RAINFOREST

RESIST MUCH, OBEY LITTLE

SAVE THE YELLOWSTONE GRIZZLY
(red & brown with bear & no ski area design)

SAVE THE WILD

STOP THE FOREST SERVICE SAVE OUR WILD COUNTRY

STOP CLEARCUTTING

SUBVERT THE DOMINANT PARADIGM

THINK GLOBALLY — ACT LOCALLY

VOTE GREEN

WOLVES! - NOT COWS

NEW BUMPERSTICKER!

Almost FREE BUMPERSTICKERS!

The following bumperstickers are printed on cheap paper (very difficult to remove) and look great on certain signs throughout the West. We have a large quantity available, and will happily send you some if you'll cover the postage. Send a 25 cent SASE for two stickers, 45 cent SASE for six, or write to inquire about larger volumes.

GET LIVESTOCK OFF OUR PUBLIC LANDS

PUBLIC LANDS GRAZING = WELFARE RANCHING

LIVESTOCK GRAZING INDUSTRY = PUBLIC LANDS RIPOFF

STOP WELFARE RANCHING

MAPS

We are offering several fine US Geological Survey maps — all suitable for wall mounting, as well as being necessary reference tools for wilderness activists. Prices listed are postpaid. Maps are mailed folded (although they can be sent rolled for an extra $2 per order, except for the Wilderness System map).

US POTENTIAL NATURAL VEGETATION A beautiful multi-color map showing 106 different vegetative types in the US. This is the Kuchler Ecosystem Map the Forest Service used in RARE II. The reverse side shows Alaska and Hawaii and offers a fairly detailed essay about the map and potential natural vegetation. A National Atlas Separate; scale is 1:7,500,000 (28" x 19"). $3.25.

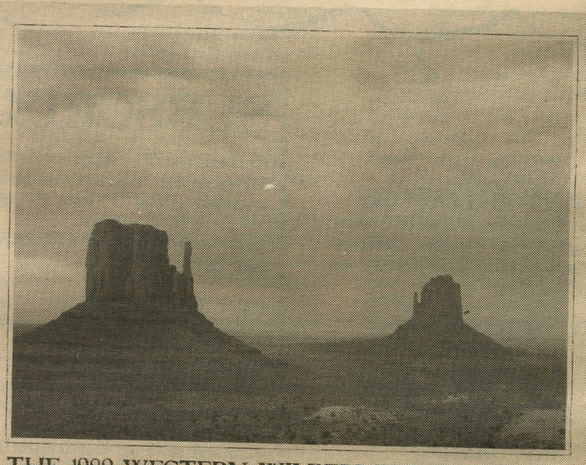
MAJOR FOREST TYPES A multi-color map showing the 25 major forest types in the United States including Alaska and Hawaii. A National Atlas Separate. 1:7,500,000 (28" x 19"). $3.25.

FEDERAL LANDS A National Atlas Separate, 1:7,500,000 (28" x 19"), showing National Forests, Grasslands, Parks, Monuments, Wildlife Refuges, BLM lands, military, Indian Reservations, Bureau of Reclamation, etc. in different colors for all 50 states. $3.25.

ALASKA NATIONAL INTEREST LANDS A splendid color map of Alaska with shaded relief, rivers, lakes, elevation points, communities and roads. The National Parks, Preserves, Monuments, Wildlife Refuges, Wild & Scenic Rivers and Wilderness Areas designated by the December 2, 1980, Alaska National Interest Lands Conservation Act are shown, as are the Tongass and Chugach National Forests. 24" x 18". $3.25.

NATIONAL WILDERNESS PRESERVATION SYSTEM This full color, large map (40" x 25") shows all designated Wilderness Areas by agency in the US (including Alaska and Hawaii), plus a list of all the Wilderness Areas by state with their acreages. Scale is 1:5,000,000. Information is current to January 1987. Rivers, state boundaries, and major cities are also shown. $3.25.

1989 CALENDARS FROM DREAM GARDEN PRESS



THE 1989 WESTERN WILDERNESS CALENDAR

The wilderness calendars from Dream Garden Press are rightfully considered to be the finest nature calendars produced in the world today; moreover, Dream Garden is owned and operated by Spurs Jackson, a long-time supporter of Earth First!. Buy your 1989 calendars (for yourself and for gifts) from Earth First! so the beauty portrayed on your wall can be defended with the money from your purchase.

1989 CALENDARS:

Big Bend National Park
California Wilderness
Grand Canyon National Park
Great Smoky Mtns. National Park
Shenandoah National Park
Utah Wilderness
Western Wilderness
Yellowstone
Yosemite

All calendars are $10.50 postpaid, except Yellowstone which is $11.50 postpaid.

& SNAKE OIL

T-SHIRTS

MOTHER GRIZZLY AND CUB

A pretty EF! shirt! A lovely full-color mother grizzly and cub against the rising sun on a light blue shirt. 100% cotton available in short (**$12 postpaid**) or long sleeve (**$15 postpaid**) or 50-50 french cut (**$12 postpaid**). "American Wilderness - Love It Or Leave It Alone" slogan. Art by Susan Van Rooy.

AMERICAN CANYON FROG

Roger Candee's popular American Canyon Frog (*Croakus abyssus pistoffus*) with the message "AMERICAN WILDERNESS LOVE IT OR LEAVE IT ALONE." A very colorful 4-color design on a grey 100% cotton Beefy-T. **$12 postpaid.**

THE CRACKING OF GLEN CANYON DAMN

Jim Stiles' infamous masterpiece. Keep on praying for that one little precision earthquake! *Black design on blue heather 75/25 blend.* **$10 postpaid.**

DEFEND THE WILDERNESS

The monkeywrencher's shirt. Art by Bill Turk. Silver design on black 100% cotton Beefy-T for night work. **$10 postpaid.** Also available in black long sleeved Beefy-T (**$12 postpaid**) or black french-cut 50/50 blend (**$10 postpaid**).

EARTH FIRST!

Fist logo with words "EARTH FIRST! No Compromise in Defense of Mother Earth!" in black on green or red 100% cotton Beefy-T or french cut 50/50 blend. **$10 postpaid.** In kid's sizes, too! Only color is green, 50/50 blend, sizes XS - L. **$7 postpaid.** Be sure to specify kid's when you order.

TOOLS

John Zaelit's powerful impression of wilderness defense both old and new — the monkeywrench and stone club crossed. Black design on tan or blue 100% cotton Beefy-T. **$10 postpaid.**

NED LUDD BOOKS

The Ned Ludd Books logo of the Neanderthal with a Monkeywrench (by Brush Wolf) and the words "Back to the Pleistocene" and "Ned Ludd Books." Black ink on a tan shirt. **$10 postpaid.**

FREE THE EARTH

A woman of power in an image by Gila Trout. Purple and silver ink on teal or fuschia Beefy-Ts. **$12 postpaid.**

DON'T TREAD ON ME

Monkeywrenching rattler on front with the words "Earth First!." Back side has off-road tire track and "Don't Tread On Me." **$12.50 postpaid.**

AMERICAN WILDERNESS - LOVE IT OR LEAVE IT ALONE

EARTH FIRST! TRINKETS ORDER FORM

Make checks out to "Earth First!" or send cash. Mail to Earth First!, POB 2358, Lewiston, ME 04241. Please allow three to five weeks for delivery (contact us if it has not been received in that time). First Class delivery can be arranged. Enter size, color, style, etc. We are sometimes temporarily out of certain items while waiting for stock to arrive. We'll send you the rest of your order immediately and the missing item as soon as we receive it. If you are in a hurry, give us a second choice of colors and when you need it by. Orders from outside of the United States must be in U.S. currency and include extra for shipping.

how many	Trinket Description	Color	Size	Amount

Sub-total
Add 7% sales tax if AZ delivery.
OKAY, HERE's

Name _____

Address _____

City, State _____ Zip _____

Mono Lake

by Claus Sievert

POB 2358
Lewiston, ME 04241

Bulk Rate
U.S. Postage
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Tucson, Arizona
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